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Recovering a future
a critical inquiry into social ecology

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Recovering A Future: A Critical Inquiry into Social Ecology

by

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Abstract

Globally, an increasing number of people are confronting accelerating ecological threats, including the unprecedented spectre of climate catastrophe, one of the widely predicted manifestations of which is an increasing incidence of viral pandemics. At the same time, broad social movements have recently emerged to combat increasing social inequality, gender-based oppression, police violence and systemic racism, and ongoing abrogation of the treaty rights and resources of indigenous peoples.

A comprehensive effort to address ecological and social issues such as these—and the links between them—is the social ecology of Murray Bookchin. Bookchin formulated the philosophical basis of social ecology in the mid- to latter part of the previous century., emphasising that efforts fo dominate nature have arisen from a long and tragic history of the domination of humans by other humans.

This thesis inquires whether the theoretical formulation of social ecology is adequate to current challenges, especially those arising from anti-racist and anti-colonial theory and activism. In particular, can a dialectical naturalism that seeks to derive an ethics and a politics of confederated directly-democratic municipalities and communities from concepts of nature be justified, given the prevailing postmodern scepticism toward naturalising theory and toward the dialectic?

My research looks at the theoretical bases of social ecology in non-reductive scientific investigation, and in a reading of natural evolution that attempts to 'ecologise' the Hegelian dialectic. However, I draw primarily upon theoretical resources from an unexpected source in contemporary Continental philosophy rather than in the revolutionary tradition—the 'new materialism' of Catherine Malabou. Ultimately, I argue that Malabou's work—supplemented by that of key anti-racist and anti-colonial writers—offers ways to think through lacunae in social ecology theory so that Bookchin's project may be *relaunched* (to borrow Malabou's terminology) in a form more adequate to the challenges of our historical moment.

To My Son Sam, and the Future he Belongs To

Table of Contents

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Introduction and Overview

A primary concern associated with the widely acknowledged ecological crisis is the threat of climate catastrophe as a result of human-caused rapid climate change. Evidence of the crisis includes disrupted food and water systems, increased threat of resource wars, rising sea levels and increased incidence of violent storm systems as ocean water warms, increased risk of viral pandemics, and acute loss of biodiversity and rapidly advancing desertification.[1] This study emerged from the question of whether a social and economic system based entirely or exclusively on growth—a fundament of capitalism—can continue to expand against the limits of a finite earth.

The accelerating ecological and climate crisis has encouraged a re-examination of an understanding of the political economy of nature, as well as a re-examination of the phenomenological location of nature between a subject that views nature outside of itself, and the objective status of a nature that is always the pre-existing groundwork of being and thus inseparable from the viewer. In this respect, this thesis has two conjoining aims: to search for an objective grounding for political action in a concept of nature; and to analyse historical and contemporary ideas of nature in the western philosophical-revolutionary tradition.

As examined more closely in the next section and in Chapter 2 of this thesis, nature can be seen as separate from humanity, an element to be managed by technological means, existing within a modification or reform of institutional arrangements. We may call this an "environmentalist" perspective. Alternatively, we may attempt to view nature from a "biocentric" or "deep ecology" perspective, regarding humanity as just one species among many, with no

special rights or role other than limiting its encroachment on the rest of nature. A third option is to see nature as constructed by human discourse and social practises, a signifier without definite referents other than projections of human desire, prejudice, or relations of power.

This thesis holds that a fourth model—that of social ecology—offers a more fundamental and comprehensive response compared to these other three approaches to the ecological crisis. This fourth model addresses what has been called an *ecological imperative* in terms of overcoming the growth dynamic of capitalism in the context of finite resources, as well as an *ethical imperative* in terms of linking the achievement of an ecological society to opposition to systems of domination and oppression in society—an opposition to social hierarchies *as such.*

Attempts to bring ecology explicitly and systematically into revolutionary thought include a variety of efforts, often broadly identified as ecosocialist, drawing on the work of Karl Marx. The thesis will focus instead on another voice that I argue needs to be brought prominently into the conversation, that of Murray Bookchin, for the development of social ecology. The conversation I examine in this thesis highlights perspectives that Bookchin and many others in the revolutionary tradition have tended to disdain, that is, philosophical resources from contemporary Continental philosophy—especially the work of Catherine Malabou.

In this moment of ecological crisis, it is time to examine Bookchin's legacy. After the publication of *Post-Scarcity Anarchism* in 1971, Bookchin's social ecology began to gain widespread influence among US activists and commentators shaped by the New Left, anti-war movement, and counterculture of the 1960s and 1970s. That influence began to wane in subsequent decades with the changing political climate ushered in by Reaganomics and neoliberalism. During the late 1980s and 1990s, Bookchin became embroiled in heated polemics

with his deep ecology critics and later with academic critics such as John Clark,[2] as well as with certain elements of anarchism in the US that Bookchin referred to as "lifestyle anarchists".[3] More recently, Bookchin's social ecology has garnered renewed attention through a new angle: his role as a major inspiration for Abdullah Öcalan, leader of the Kurdish Worker's Party (PKK). Öcalan's adoption of "confederal democracy" led to efforts to realise a social and political project that has become known as the Rojava movement, or simply, Rojava, thus demonstrating the far-reaching and enduring relevance of Bookchin's political theory.[4]

One way of framing this inquiry, then, would be to ask if social ecology as developed by Bookchin is adequate to the challenges of the current historical moment. This thesis argues that social ecology's philosophical basis in the writings of Bookchin, while enduringly important as a framework, requires critique and transformation in order to respond more fully to current demands of climate justice and anti-colonial activism. The thesis thus addresses both theory and practise, emphasising the relevance of Bookchin's argument for political praxis by drawing out and assessing some of the implications of my argument for activists, particularly in the final two chapters.

Methodologically, I pursue a broad critical inquiry into social ecology. The inquiry involves several elements, including its ontological basis in a philosophy of nature; scientific support for its characterisation of nature and natural evolution; its epistemological arguments, or lack thereof; the adequacy of its dialectical approaches; its relation both theoretically and practically to issues of alterity and contingency; and the status and prospects for its political project. I examine these in the context of current philosophical and theoretical discourse, the writings of Malabou in particular. My three guiding questions are the following: does the social ecology of

Murray Bookchin present a well-argued alternative to various forms of environmentalism, deep ecology, and social constructionism? How might certain aspects of his theory and approach be transformed by encounters with other schools of thought and thinkers, in the historical context of the early decades of the twenty-first century? How does an analysis of the complex issues raised by such an inquiry contribute to a sufficient response to the threat of ecological devastation and to the ongoing deleterious effects of various intertwined systems of social domination and oppression?

My aim is not towards a deconstruction of social ecology, but rather towards what Malabou refers to as a *plastic* reading. As we shall see, Malabou's strategic philosophical concept of plasticity derives initially from the way in which the subject in Hegel's system can be said to anticipate and even create its "accidents". Plasticity thus refers to a capacity to receive, create, and annihilate form. A plastic reading would be the form of a philosophical structure left after its deconstruction, one that would discover how the project of that philosophy might be *relaunched.*

Ultimately, I argue that the new materialism associated with the work of Malabou offers philosophical resources that successfully address epistemological and ontological limitations in the understanding of nature in critical theory and social ecology, while preserving a deconstructive awareness as a counterforce to the potentially dogmatic and even authoritarian implications of theoretical closure. Further, however, I argue that social ecology, with its "ecologised" Hegelian dialectical approach, offers a more adequately differentiated political theory of a radical democracy than do political approaches inspired by a social constructionist perspective, or by contemporary Continental philosophers to date.

In addition, I argue that creolization theory as advanced by Jane Anna Gordon and Lewis R. Gordon[5] suggests a way to understand how a complex interplay of subject positions within the Global South and Global North might develop creative transformations of perspectives and identities in the process of moving towards what Bookchin, (drawing partly on Rousseau's idea of the general will), terms a *general interest.* I argue further that Linda Martín Alcoff's *The Future of Whiteness*[6] shows how the social identity of whiteness, currently mired in a toxic period of white nationalism in the US, a "nationalism" ironically with international sources of support, can be transformed towards a positive contribution to the radical democratic project envisioned by both social ecology and creolization theorists.

Responding to the holism of Murray Bookchin's social ecology, this study is broad-ranging, critically but sympathetically following the contours of Bookchin's readings of natural and social history, ethical formulations, and political project. I explore a number of lacunae and critical challenges to this project within the current intellectual and political climate, as these are increasingly shadowed by the larger threats evoked by the term "climate". My primary focus on addressing what I see as theoretical lacunae in social ecology, and on suggesting rather than spelling out a new form for social ecology, results in a project that may seem composed of disparate elements at times. To counter this tendency, which results from the way I have structured the text, I have attempted to provide introductions, conclusions, and transitional comments that I hope provide a guiding thread to the overall argument.

I have responded at various points to some of the major critiques of Murray Bookchin's social ecology from John Clark. As Sandra Harding has maintained, any viable notion of the

objective status of an argument means demonstrating the ability to respond fairly and adequately to one's strongest critics.[7]

This introduction provides an overview of my argument. In the first chapter I briefly introduce a key aspect of Murray Bookchin's social ecology—its thesis that the basis for an ethical approach to society and a new politics of confederated direct democracy can be drawn from a study of nature. I then survey some general philosophical approaches to nature as presented by Kate Soper.[8] I focus on what she defines as "nature-sceptical" approaches, that is, social constructivist views, primarily because these have not been as sufficiently addressed by social ecology theory as have views emerging from reformist environmentalism and deep ecology.

I divide social constructionist views into two broad camps: those emerging from Marxism, and those emerging from deconstruction, and analyse instances of both. Stephen Vogel's *Against Nature* explores the "problem of nature" within Marxist theory, and offers an "ethics of the built world".[9] A struggle against a lumber company in British Columbia provides a case study of an approach informed by Derridean deconstruction.[10]

The second chapter introduces the life and work of Murray Bookchin, followed by a presentation of Bookchin's reading of nature and natural evolution in more detail, as well as his dialectical naturalism. Subsequent chapters provide additional scientific support for some but not all of Bookchin's assertions about nature, while arguing that his views require additional epistemological justification as well. In addition, I assess the adequacy of Bookchin's ecologised dialectic, and argue for the need to articulate more explicitly issues of gender, racism, and colonialism in relation to the ethics and politics of social ecology.

In the third chapter I examine the treatment of nature in Derrida's study of Rousseau, partly in preparation for introducing Malabou's New Materialism, which argues against the immateriality of the trace in Derrida, and attempts to reconnect Continental philosophy to life, conceived in biological and evolutionary terms. I then return to Murray Bookchin's philosophy of social ecology, prefaced by a brief summary of the philosophical biology of Hans Jonas, an important influence on Bookchin's thought. I argue that Malabou's work provides philosophical resources for social ecologists in thinking through some of the lacunae in social ecology with regard to a naturalist ontology, examined in Chapters 4 and 5. In Chapter 6, I argue that Malabou's work can aid in opening social ecology to contingency and alterity in the dialectic, as well as in theory and practice in general. In Chapter 7, I argue that the deconstructive efforts of Malabou can open social ecology ethics to transformation in the encounter with other thought, resulting in the possibility of a *creolized* social ecology that may expand its global impact.

Social ecology offers coherent bases for an ethics-based *political* thought, a thought that can revive a revolutionary tradition mired in the limitations of Marxist categories, on the one hand, and, on the other, a Continental philosophy in reaction to Marxist dogmatism that remains insufficiently self-critical of its own limitations in attempting to find inspiration in sources such as Nietzsche and Heidegger. The political and activist implications of social ecology are examined in Chapter 8. Throughout all these conversations in this study continues the very material and "grounded" focus on ecological threats and responses, especially in the concluding chapter the potential role of the "soil carbon sponge"—highlighted by social ecologists—on reducing the threat of ecological and more specifically, rapid androgenic climate change-related catastrophe.

Notes to Introduction

1. For scientific information and assessment of androgenic climate change there are, of course many sources. Two recent assessments can be found at Michael E. Mann, Sonya K. Miller, Stefan Rahmstorf, Byron A. Steinman, and Martin Tingley, "Record Temperature Streak Bears Anthropogenic Fingerprint," www.news.agu.org, American Geophysical Union, 10 August, 2017. Accessed 20 October, 2018; and Intergovernmental Panel on Climate Change (IPCC), 91 authors, "IPCC Press Release," IPCC Press Office, 8 October, 2018. Accessed 22 October, 2018. www.ipcc.ch.

2. John P. Clark is Gregory F. Curtin Distinguished Professor in Humane Letters and the Professions as well as Professor of Philosophy and a member of the Environmental Studies faculty at Loyola University New Orleans, USA. He is the author of several books, including *Anarchy, Geography, Modernity: The Radical Social Thought of Elisee Reclus* (2004), and most recently, *The Impossible Community: Realizing Communitarian Anarchism,* 2013. Clark, once a student and admirer of Murray Bookchin, has since become one of his staunchest critics.

3. See Murray Bookchin, *Social Anarchism vs. Lifestyle Anarchism: An Unbridgeable Chasm* (Chico, CA: AK Press, 1995).

4. There are now many sources on Rojava. The story of the connection between Rojava and Murray Bookchin is briefly told in the following chapter. For a pessimistic assessment of the fate of the Rojava revolution in light of the US green-lighting of the Turkish see Kenan Malik. "Syria's Kurds dreamt of a 'Rojava revolution. Assad will snuff this out." 27 October, 2019 Oct. 27, 2019. Accessed 3 November, 2019. www.theguardian.com.

5. See Lewis R. Gordon, *What Fanon Said: A Philosophical Introduction to his Life and Thought* (New York: Fordham University Press, 2015; and Jane Anna Gordon, "Creolizing as the Transdisciplinary Alternative to Intellectual Legitimacy on the Model of the '"Normal Scientific" Community' ', *Quaderna,* 3/(2015): 3.

6. Linda Martín Alcoff, *The Future of Whiteness (*Cambridge: Polity Press, 2015).

7. See Sandra Harding, *Objectivity and Diversity: Another Logic of Scientific Research* (Chicago: University of Chicago Press, 2015).

8. Kate Soper, *What is Nature: Culture, Politics, and the Non-Human* (Oxford: Blackwell Publishers, 1995).

9. Steven Vogel, *Against Nature: The Concept of Nature in Critical Theory* (Albany: State University of New York Press, 2006).

10. Noel Castree and Bruce Braun, eds., *Social Nature: Theory, Practice and Politics* (Oxford: Blackwell Publishers, 2001).

Chapter 1: Capitalism and the Climate Crisis

The claim that capitalism is fundamentally incompatible with an adequate response to the threat of climate catastrophe has gained increasing attention in recent years. A recent report from Bios, an independent research institute based in Finland, concludes that we are entering a new era of profound challenge, as access to cheap, plentiful energy dries up and the effects of climate change take hold—and free market capitalism cannot dig us out. The report's authors seek to move beyond the "either/or" question of capitalism or some other system; instead, they focus on the economic aspect rather than the cultural and political dimensions of capitalism.[1]

One of the more prominent voices highlighting the need to confront unregulated capitalism radically is that of Naomi Klein. In *This Changes Everything,*[2] Klein critiques the model of "extractivism" which treats the environment as a waste dump, and debunks the "magical thinking" that underlies various geoengineering schemes, such as dimming the rays of the sun using sulphate-spraying helium balloons. The risks of such mega techno-fixes, she argues, should be obvious. Klein critiques various forms of climate denial, including corporate-promoted efforts, and the belief among political centrists that change can be gradual and painless; she insists the scope and depth of change requires confronting the growth imperative of capitalism. She fails, however, to sketch an outline of an alternative economic, cultural, and political system, preferring to focus instead on local struggles against environmental devastation and exploitation.

Another prominent voice is that of Jason Moore, whose writings move further towards the question of a viable alternative to capitalism, in some form of what may broadly be termed ecosocialism. Moore critiques the notion of the Anthropocene, which suggests that the threat to

the natural world comes from an undifferentiated humanity, and suggests the term "capitalocene" as a critical provocation to this sensibility. Even though some one hundred corporations are responsible for seventy percent of carbon dioxide emissions, corporate leaders emphasise what workers can do to reduce their carbon footprint through individual acts of consumerism. This approach shifts attention from production, the source of most of the problem, to consumption. Though modernised societies have the technological means to decarbonise very quickly, finance capital seeks only short-term applications that maximise profit, not those that require longer term and more extensive transformation, such as rebuilding electrical grids to serve solar and other forms of clean energy. Moore identifies capitalism as not simply an economic but also as a political and cultural system, one that continues to lose legitimacy because it no longer can promise the kind of development that leads to social well-being without increasing the devastation of the environment. He calls for such changes as the integration of town and country, carbon-free transportation systems, and the transformation of banking and finance systems towards democratically-controlled accumulation funds. Further, he notes the threat that ruling class forces will seek to impose authoritarian and military "solutions" to the climate crisis.[3]

Indeed, a recent resurgence of right-wing responses to climate threats has emerged, including what may best be termed ecofascism.[4] A recent article by Sam Adler-Bell in *The New Republic* highlights how ecofascism has become fashionable again on the far right.[5] Adler-Bell briefly recounts the way in which German romantic writers such as Ernst Moritz Arndt and Wilhelm Heinrich Riehl synthesised nationalism and naturalism in the mid-nineteenth century. Their philosophy later inspired the *Völkisch* movement, a movement of German youth in the 1920s and 1930s that celebrated the wholeness, purity, and plenitude of peasant life against its

opposite—the rootless urban Jew—and notably comprised a significant cultural milieu for the thought of Heidegger. These movements continue to have impact today in examples of far-right racist acts of terrorism. As Adler-Bell notes, the Christchurch shooter echoed Riehl, linking the "preservation of land" to the "preservation of cultural ideals and beliefs". His writings in turn inspired the El Paso shooter, who wrote, "If we can get rid of enough people, then our way of life can become more sustainable."[6]

In addition, Adler-Bell cites the Finnish deep ecologist Pentti Linkola, whose theories are increasingly popular with contemporary ecofascists, and who advocates for what has been termed "the politics of the armed life-boat". Linkola warns, "When the lifeboat is full, those who hate life will try to load it with more people and sink the lot. Those who love and respect life will take the ship's axe and sever the extra hands that cling to the sides". [7]

Against these survivalist ideologies, Adler-Bell echoes Moore in his criticism not only of the far right but also of liberal environmentalists who blame "humankind" for the impending climate disaster, rather than 'the multi-billion extractive industries and the carbon-spewing corporations of the Global North'. The only realistic and moral answer, he argues, is a global green new deal, brought about by an uprising of the "global working class".[8]

The resurgence of ecofascism underscores the importance of Murray Bookchin's critique of the dangerous political implications of certain strands of deep ecology, as I recount in Chapter 2 and in Chapter 4. Moreover, the emerging awareness of the incompatibility of capitalism and the health of natural systems in the context of climate chaos—including human social, economic, cultural, and political systems—decisively underscores the contemporary relevance and

importance of his efforts to articulate a viable alternative to these systems that have led humanity to the brink of catastrophe.

Shifting The Spectrum

At a time when the political spectrum of mainstream discourse in the US and in many parts of the world seems to have both narrowed and shifted severely to the right, it may seem utopian—in the negative sense of an excessively idealistic and unattainable fantasy—to give a sympathetic portrayal of a fierce revolutionary anti-capitalist activist and thinker such as Murray Bookchin. I assert, however, that fundamental social and political changes often begin as seemingly small movements on the margins, as with the movement for a confederal democracy in Kurdistan, and the municipalist initiatives occurring in various cities throughout the world discussed later in this chapter and in the concluding chapter. These nascent social and political formations have the potential over time to challenge the hegemony of capitalism in new ways.

Bookchin's Philosophical Linkage of Nature, Ethics and Politics.

Murray Bookchin's work provides a legacy of powerful and soundly reasoned arguments concerning the intertwined ecological and ethical imperatives that demand rational alternatives to capitalism, especially as societies face the choice of democratic or authoritarian responses to increasing climate-related threats. He argues that the grow-or-die dynamic of capitalism, supported by an ethos of competitive individualism, threatens not only the resources of a finite earth, but draws from and perpetuates age-old systems of domination, exploitation, and expropriation. Though it may be possible to engineer a "steady-state" or "degrowth" society that

addresses the issues of economic growth but avoids naming capitalism as a *social* as well as an economic system, Bookchin strongly rejects such an instrumental "solution". He demands that we envision, think through, and—as best we can—work toward a society free of all systems of domination and oppression. Bookchin argues that a study of natural evolution reveals a *nisus* or tendency towards the increasing diversity and complexity of ecosystems—which he prefers to term ecocommunities—that encourages an increasing complexity of lifeforms, and thus an increasing complexity of nervous systems, which in turn, leads to nascent capacities for subjectivity and choice, and ultimately, of forms of freedom. He bases an "objective" ecological ethics on this notion of progressive evolution, one that informs a politics of confederated directly democratic local municipal and community assemblies.

In his historical and anthropological studies, Bookchin gathers a history of systems of domination and oppression along with efforts to contest these, as well as a history of the development of capitalism. My principle critique of his work is a call for the integration within social ecology of a theoretical structure that aligns more with anti-racist and decolonising efforts, as well as a call for increased attention to recent research that provides a wider global account of the emergence of capitalism.[9] In the following chapter, I present the life and thought of Murray Bookchin in more detail.

Discourses of Nature

In order to frame the discussion of nature as a possible ground for an ecological ethics and radical democratic politics, I turn to an overview of contemporary discourses of nature provided by philosopher Kate Soper. In *What is Nature?: Culture, Politics, and the non-Human,* Soper

explores the contested status of understandings of what we mean by nature.[10] She quotes Raymond Williams: 'Nature is one of the most complex words in the language'.[11] The complexity of nature is obscured by the ease with which we deploy the word in a variety of contexts. These usages range from the "essential nature" of rocks to the totality of the non-human world; from a romantic or poetic evocation of natural beauty to what we eat for breakfast; from supposedly pristine "wilderness" to the cultivated garden; from the unimaginable cosmos to what may be considered the animal nature of the human body.

What is Nature? gives a summary overview of various discourses of nature in the Western tradition. Soper notes that the most common and fundamental sense of the term *nature* refers to everything that is not human. She writes, 'Whether it is claimed that "'nature'" and "'culture'"are clearly differentiated realms or that no hard and fast delineation can be made between them, all such thinking is tacitly reliant on the humanity-nature antithesis itself and would have no purchase on our understanding without it'.[12]

The discourse of nature may thus be seen as the paradigmatic discourse of the Other in Western thought. At various points the construction of the Other in Western culture has led to a "history of exclusions" from what is considered properly human, including the 'primitive', the 'animal', the 'corporeal', and the 'feminine'—all those elements considered 'nearer to nature and lacking in reason; or bestial in their behavior; or immersed in the body and reproductive activity'.[13] Historically these attitudes have perpetuated colonialism, slavery, forced removal, patriarchy, and the oppression of many groups.

Soper engages with the current politics of the idea of nature, and how these are contested in contemporary social movements. She distinguishes between "nature-endorsing" and "nature-

sceptical" perspectives. Nature-endorsing perspectives are associated with certain forms of ecological advocacy—especially conservation efforts, and the urging of a heightened respect for and "sensibility" toward the natural world. Prominent among these perspectives is "deep ecology", a theoretical and ecological movement that argues for a "biocentric" or "ecocentric" view that all living things have intrinsic worth regardless of their utility for humans, and calls for a radical restructuring of human societies in accord with these views. As we will see in Chapter 4, Andy Price's book *Recovering Bookchin* focuses primarily on recovering the robust quality and coherence of Bookchin's views from the caricature created by Bookchin's deep ecology opponents.[14] As noted in my introduction, refuting deep ecology views has become even more important today, as neo-reactionary and alt-right elements push anti-modern and "biocentric" thought and ethics in an increasingly ecofascist direction.

Returning to Soper's distinction previously mentioned, and following Bookchin's (and others') critiques of deep ecology, this study focuses rather on the "nature-sceptical" perspectives that fall under the category of the social construction of nature. These include efforts to denaturalise notions of race in critical race theory, as well as to interrogate the nature-culture divide itself and the way in which it has been used to define and exclude what has been considered 'properly human' in the West. Judith Butler and a number of other writers have developed powerful critiques of the coding of the feminine and hetero-normativity with naturality, used to justify the oppressive treatment of women and gender non-conforming people.[15] Social constructionist views have become increasingly pervasive as well in the social sciences.

The Social Construction of Nature

Social Nature: Theory, Practice, and Politics, edited by Noel Castree and Bruce Braun, presents a collection of essays that demonstrate a range of ways in which various formulations of social constructionism in relation to nature have influenced the work of contemporary geographers.[16] Castree and Braun argue from various perspectives, most prominently Marxist and poststructuralist, that knowledge of nature is invariably inflected with the biases of the knower. Marxists like David Harvey and Neil Smith have analysed the way in which geographical knowledges of nature explicitly and implicitly reflect the class interests of the most powerful social groups.[17] While Marxists speak of ideologies of nature serving specific social interests, other theorists influenced by French poststructuralism, such as Kay Anderson and Bruce Braun, aim to show that knowledges of nature are more complex, and draw upon a wide repertoire of other social images and norms.[18] All claims about nature, they argue, are discursively mediated, and these discourses create their own "truths" about nature. In addition, the social construction of nature, whether considered from a Marxist or poststructuralist perspective, includes the ways in which societies past and present interact practically with nature, and the ways in which they physically reconstitute nature, both intentionally and non-intentionally.

One of the principle theorists of a social nature is David Demeritt. In 'Being Constructive about Nature',[19] he cites Donna Haraway's claim, 'Nature cannot precede its construction'.[20] Demeritt does not assume a *hyperconstructionist* view that would attempt to deny the myriad realities that societies define as "natural". The point is rather that there is never any way to access, evaluate, and affect nature that does not involve socially specific knowledges and practises.

Social construction theory can be generally divided into social construction as refutation of the naturalising tendencies used to justify systems of domination and oppression as noted previously; and social construction as philosophical critique. Many social construction theorists critique Enlightenment presumptions about universal knowledge and experience, and attempt to situate knowledge socially and historically. Haraway, for example, has proposed the idea of "situated knowledge" as '*simultaneously* an account of the radical historical contingency for all knowledge claims and knowing subjects . . . *and* a no-nonsense commitment to faithful accounts of the real world'. Such situated knowledge is reflexive about its own location and construction, and thus politically accountable.[21]

However, Demeritt acknowledges a need for more explicit philosophical engagement with the epistemological and ontological issues of the social construction of nature.

> Debates over the social construction of nature have created more heat than light. Instead of illuminating the political and philosophical stakes at issue, constructionism has become largely a symbolic term. For its proponents it is a sign of modish radicalism, while others advertise their commitment to rationality and reasonableness by trashing it. This situation has tended to encourage careless and unreflexive usage of the term.[22]

In questioning what we mean by phrases such as "nature cannot precede its construction" I explore the questions and implications of a philosophy of nature. It is not often clear what is meant by the social construction of nature other than the recognition that humanity has materially intervened in almost every aspect of the natural world, together with the insight that

all our experience is discursively mediated. I argue that social construction theories, whether in their Marxist, critical theory, or in their poststructuralist-oriented variants, are inadequate to the critical challenges of the ecological crises we face. Instead, I call for a politically radical form of "non-reductive naturalism", a term introduced by Soper, as a philosophical direction between deep ecology on the one hand, and a strict social constructionist approach to nature on the other.[23] I believe only such a non-reductive naturalism offers the epistemological, ontological, and ethical resources needed to inform a comprehensive response to these challenges.

Social ecology certainly presents a well-articulated form of non-reductive naturalism, but can be critiqued as a form in which Enlightenment premises of the unitary subject obscure potentially valuable insights into the contested way in which agencies and subjectivities are formed. Paradoxically, however, if informed by these insights, a social ecology framework may provide the potential for a recovery of a new, community-centred revolutionary subject, with an educated sense of agency capable of the dedicated and persevering work required to reconstruct society towards a liveable future.

In the next section, I examine two sustained attempts to articulate a theory of the social construction of nature, one based on Marxist and post-Marxist thought, more specifically from a Habermasian critical theory perspective; and the other reflecting a poststructuralist approach inspired by the writings of Jacques Derrida. I do not pretend to present a broad assessment of social constructionism, especially given Derrida's critique of the logic of the example, that is, of iterating instances of a supposedly unified essence. However, these examples raise issues important for my argument as a whole.

The Problem of Nature in the Marxist Tradition

The critique of a naïve element within the Marxist tradition, a scientism attributed especially to Engels, can be seen in the emergence of the tradition of Critical Theory, also known as German Western Marxism. Steven Vogel offers an analysis of the difficulties and ambiguities that emerged within this tradition in relation to the treatment of nature generally, and to the possibilities for a coherent environmental ethics in particular.[24] He focuses ultimately on the work of Jurgen Habermas as a context for articulating his own contribution to a "communicative theory of nature". The Critical Theory tradition and especially the work of Habermas reveal a continuing appropriation and adaptation of Kantian and Hegelian epistemologies, situated within a problematic defined by Marxism and modern social science.

Critical Theory defined itself from the beginning in opposition to the attempt of Engels to understand Marxism as a "science," with methodologies similar to natural science. For Georg Lukács, guided by a subtle understanding of Hegel, the epistemological foundation of Marxism was considerably more complex than could be provided by a positivistic understanding of science. Critical theorists sought to bring science itself into a critique of ideology. Lukács and others rejected the idea that a critical social theory should take the methods of natural science as a model. Yet the validity of that method for the examination of nature remained ambiguous and complex. Lukács used a version of a Neo-Kantian methodological distinction between philosophical investigation and natural science to argue that Marxist philosophy deals entirely with the social and has nothing to offer to the results of natural science. By the time of Horkheimer and Adorno's *Dialectic of Enlightenment,* the appropriation of the methods of natural

science even within the sphere of social theory had become problematic: natural science itself had to be criticised, not only the scientistic effort to construct social theory in its image.

Given the technologically mediated horrors of World War II and the Holocaust, Frankfurt School theorists began to argue that the "domination of nature" associated with science and technology could not be separated from the social domination that had been the focus of critical theory. Vogel comments that the critical theory tradition vacillates between these two poles, sometimes sanctioning or employing natural science when applied to nature, and sometimes endeavouring to go further and criticise natural science itself. The dualistic assertion of Lukács that critical theory must restrict itself to the social is undercut when he expands the category of the social so broadly as to include nature as a category. On the other hand, Horkheimer and Adorno's critique of "enlightened reason" as domination tends to undermine itself, insofar as their own normative claims in opposition to domination are grounded on the very Enlightenment values they are questioning. They attempt to avoid circularity by appealing to the "nature" that enlightened natural science and technology are supposed to be harming; however, they are unable to provide an epistemological justification for a knowledge of nature that would provide an alternative to the knowledge provided by natural science.

Vogel asserts that two primary kinds of argument can be discerned within the tradition of critical theory. The first is a Hegelian argument, associated with Lukács and others, insisting on the active role of a socially situated subject that emphasises the dynamic, social, and historically changing account of what the world is like, and sees the static and supposedly "natural" as representing those aspects of the world whose social character has been congealed, hidden and thus reified. The model for critical theory here is the dissolving of false immediacies to reveal

that what may be thought of as "natural" is actually the result of socially organised activity. This model is similar to Marx's account of the exchange value of commodities as consisting in the truth of "congealed" labour.

The second kind of argument has its roots in more romantic traditions of nature; in such traditions, nature appears as the Other to the human and takes on a positive sign in this argument, in which science and technology are critiqued because they violate that world's otherness as a distinct ontological realm that humans cannot fully grasp. The latter argument is defended not only by Horkheimer and Adorno, but by Marcuse as well, and it is similar to themes that appear in the late writings of Heidegger.

Vogel's attempt to articulate a "communicative theory of nature" to resolve some of the key dilemmas of the theory of nature in critical theory is informed both with and against Habermas. Vogel cites Habermas's 'key methodological insight' introduced in his *Theory of Communicative Action* that philosophy should concentrate on linguistically mediated relations among subjects as originary, rather than taking the model of an individual subject confronting an object in the world, attributed to Hegel's alleged "philosophy of consciousness". Horkheimer and Adorno had presented an unrelenting critique of the instrumentalism of a reason derived from a subject-object encounter, but could not justify their own critique, and could only appeal to a "reason before reason" in nature. Habermas suggests they could have established their normative foundation based on concepts of freedom, domination, and reconciliation derived not from the instrumental relations of a subject to the world of objects, but rather from the communicative relations among subjects interacting through language.

Building on Austinian and Searlian speech-act theories Habermas develops a system that incorporates neo-Kantian distinctions between validity claims, regulative speech acts, and expressive speech acts, leading to the idea of *discourse ethics.* Though Habermas was discomfited by challenges concerning how discourse ethics might apply to questions of environmental ethics, Vogel remarks that Habermas may have been right to assert that this difficulty in extending the theory to nature 'may not be a defect'. After critiquing anti-anthropomorphic challenges from "deep ecology" and other sources, and exploring the various tensions and problematics of the grounding of an environmental ethics, Vogel argues that in fact discourse ethics offers the most consistent grounding of a theory of nature in an 'ethics of the built world'.

> We are responsible for what we build precisely because *we* build it, and because in building it we build the world and build ourselves as well; but too often nowadays we do not acknowledge that responsibility. To acknowledge it would be to see the question "what ought we to build?" as indeed a normative one, bearing some relation doubtless to what Habermas calls "ethics" or "aesthetics" but in less of an existentialist or narcissistic sense. Discourse about such a question would be discourse about what it would be *good* to build, what would make the world a better place, more beautiful and more livable for its inhabitants (human and nonhuman both), and what would make us—the language users whose first sentence lights the world up and releases value in it—better people.[25]

Vogel's communicative theory of nature provides structures and concepts for an effective rebuttal of the supposed "biocentric" claims from deep ecology proponents and others. Deep

ecology, drawing from the work of philosopher Arne Naess and popularised within academia by Bill Duvall and George Sessions as well as within an earlier phase of activism by the Earth First! organisation, has sought to articulate an ethics wherein every organism in nature is seen to have absolute—and equal—value, and an intrinsic worth apart from human utilitarian concerns. Certain interpretations of such a "biocentric" ethics lie behind the notorious call by Earth First! activist David Foreman to abandon efforts to eradicate AIDS in Africa and elsewhere and let 'nature finds its course' in relation to population balance between humanity and non-human nature because these non-human forms—including the HIV virus—have their own intrinsic worth.[26]

Beyond this rebuttal of biocentrism, Vogel reveals the dilemmas of an environmental ethics that seeks to honour the value of a nature "in-itself" without falling into a romantic naturalism on the one hand, and an ethics that acknowledges all our concepts of nature as mediated through discourse, on the other. As the only animal that exhibits both a sustained discourse and thorough transformation of the environment, we humans must, it is argued, take responsibility for that environment in human terms as socially constructed both conceptually and materially, by using the only truly meaningful terms, those of our reflexive and inter-subjective human discourse.

However, a communicative theory of nature remains limited as a guide for both action and interaction that may avoid the problems of relativism, nor is it sufficiently robust to defend against the power of a hegemonic instrumental reason within communicative or other interaction, as identified by Frankfurt School thinkers. Vogel bases his theory partly on a long history of non-empiricist science. Bookchin also developed an important critique of empiricism, but from the

point of view of a naturalistic dialectic.[27] He notes Hegel's distinction between an immediately present empirical "reality" or *Realitåt,* and *Wirtlichkeit*—the dialectical "actuality" that is the fulfilment of a rational process. The potentiality that Wirtlichkeit actualises is as existentially real as the world we sense. An egg patently exists, even though the bird whose potential it contains has yet to develop and mature. In a radical empiricism, the real is a "frozen now" to which we merely add an adventitious past and presume a future. In contrast, within a naturalistic dialectic both past and future are part of a cumulative, logical and objective continuum that includes the present.

Bookchin argues that one of the failings of dialectical materialism is that it premised dialectic on the nineteenth century's physics of matter and motion. However, it would be just as limited to base a dialectic merely on a notion of 'interconnectedness'. Mere 'interconnection' is not sufficient to account for graded entelechial development—that is, to self-formation through the self-realisation of potentiality. The interconnectedness of certain predator and prey species in nature gives us only a limited understanding, but the way in which they may have differentiated from a common ancestor in the course of evolution can tell us how development occurs, and what direction these developments take. Further, social processes embody a graded development of a potential from a given "what is" to a "what should be."

A broader evolutionary perspective of the development of complex nervous systems and the potential for increasing subjectivity and choice, culminating in the graded development of humanity and human society and culture as a 'second nature', can provide the basis for a more robust, radical, and objective ethics than that proposed by Stephen Vogel. The validity of actualities that derive from a dialectical exploration of potentialities and their internal logic is

tested by a logic of processes, not by conventional reason alone, whether that of conventional or "non-empirical" science. This dialectical exploration can guide ways in which the processes of natural evolution might be concretely illuminated and consciously fostered, evident in social ecology's role in pioneering of permaculture and other principles of ecological land use and eco-technology, situated within eco-communities whose social and ecological diversity offer increased evolutionary pathways.

Moreover, an ecologised social ecology dialectic may overcome some of the limitations of dialectical materialism and help to ground renewed revolutionary movements, recovering a socially radical thrust lost within Habermasian-oriented communicative theory. After all, Habermas and Vogel's dialogic agreements, reached in an inter-subjectively shared life world, and depending on the historical social context, may still be coercive in substance if not form.

Ultimately, Vogel's thesis remains ensnared (as well) within an ambiguous materialist ontology, despite the attempt of critical theorists to move beyond a naïve scientism and a Kantian epistemological dualism. As we shall see when we return to Bookchin's work, social ecologists, as well as the philosophical movement known as the New Materialism, propose new and expanded concepts of matter and form, grounded within a Hegelian movement beyond the Kantian paradox of the "thing in itself"—of presuming to know what we cannot know.

Poststructuralist Constructions of Nature

To some extent, the premises of a neo-Marxist or critical theory approach to the social construction of nature may be said to be at least partially "sublated" within social ecology, emerging as it did, partly out of the Marxist tradition, though including as well influences from

classical anarchism, radical feminism, and radical Green thought. Bookchin argues with Marxist categories and logic implicitly and explicitly throughout much of his work. However, he disdains a sustained reply to postmodern or post-structuralist critics out of an ethical stance against what he sometimes dismisses as "yuppie nihilism". Staging a confrontation between social ecology and theories of the social construction of nature inspired by post-structural writing requires a somewhat lengthier and more complex journey. We begin by looking at an instance engendered by the dissemination of poststructuralist influences within social science, specifically within the field of geography.

In 'Nature, Poststructuralism, and Politics', Bruce Braun and Joel Wainwright present an instance of the possible consequences to environmental politics and ethics of a set of arguments often referred to as 'poststructuralist.'[28] The instance they present concerns the effect of the breakdown of a system of sustained yield forestry on communities linked to forests in British Columbia. In Braun and Wainwright's account, sustained yield forestry was organised in the 1940s according to a system of bounded forest spaces where "harvesting" was permitted by the provincial government of British Columbia at a rate equal to the annual increase in tree fibre in the region as a whole. The metaphor of a "working circle" was used to image the rationality of this system, whereby, in theory, areas initially harvested would be ready to cut again when one cycle of the circle was completed.

However, by the 1980s and 1990s, for reasons ranging from inaccurate inventories to falling rates of profit, areas of second-growth forest designated to be recut were not yet ready for harvesting. In addition, the increasing mechanisation of forestry in the area, led to unemployment in the industry, with significant effects on some local communities. These factors

pressured the logging companies to log areas of the forest that were more remote. All these factors created a crisis in the British Columbian forest communities, leading to escalating conflicts among loggers, corporate interests, and environmentalists, and an array of other actors, such as state forest managers, community businesses, local First Nation peoples.

In their analysis of the British Columbia logging crisis, Braun and Wainwright critique "conventional" interpretations of forest struggles, which place actors in pre-given categories as consciously representing particular objective interests. Above all, they challenge the ways in which the 'rainforest' itself is constructed and stabilised as a prior object of economic and political calculation.

In pointing to the ways in which the rainforest has been constructed, the authors discuss a 1945 report by Justice Gordon Sloan, entitled *The Royal Commission Report on the Forest Resources of British Columbia,* which provided the blueprint for sustained yield forestry. In accordance with the discursive practises of most white settlers in British Columbia (and by extension, with many of the discursive practises that characterise Western colonial expansion), this report presents the forest as a *natural* rather than a *social* entity, consisting entirely of a mix of different species of trees. This discursive presentation of the forest as "nature" had become common sense through processes of iteration, where it became sedimented as 'reality', or as a master concept of the forest, in ways that facilitated technocratic management and control.

Braun and Wainwright draw on poststructuralist insights in calling attention to the ways in which this master concept of the forest was constituted, as well as to the ways in which the ordinary play of its concepts may be put under suspension. They note how Jacques Derrida read Ferdinand de Saussure's insight into the "arbitrariness of the sign" to demonstrate the mutability,

and often un-decidability of meaning. They adopt Judith Butler's notion of the "constitutive outside", or that which must be excluded in order for any entity or identity—such as nature, sex, or the body—to appear coherent. They also reference her idea of an "affirmative deconstruction . . . [wherein] a concept can be put under erasure and played at the same time".[29]

British Columbian forest disputes came to a crucial point in 1984, when the multinational company MacMillan Bloedel announced plans to log portions of Meares Island, located in Clayoquot Sound on the west coast of Vancouver Island. One of the most effective protests was made by a Tla-o-qui-aht band, which produced and delivered to court proceedings a map produced for them by archeologists, which claimed the entire island as their 'traditional territories'. Braun and Wainwright write:

> The significance of this map was that it challenged the erasures, or "cognitive failures," that had underwritten forestry since the 1940s. Where forestry officials had always seen a "natural" landscape without political-cultural claims, the Tla-o-qui-aht interjected a landscape worked-over by many centuries of Tla-o-qui-aht land use. With this map the exclusions that were constitutive of colonial forestry on the coast returned to disrupt the smooth workings of colonial power.[30]

The authors do not claim that the Tla-o-qui-aht map, or the other maps subsequently produced for First Nation peoples of their native territories, represent the final "truth" of nature. The maps are intelligible because of a complex inter-textuality with cartographic conventions of 'objectivity', Lockean discourses of 'property', archaeological norms of research and notions of

indigeneity, and so on. They endorse a version of what Gayatri Spivak terms "a politics of the open end"—an ongoing process in which struggles over identities and rights make and remake identities and relations, within a "thickets of discourse and practises of signification"(quoting Bruno Latour).[31]

Braun and Wainwright impressively show the productivity of poststructuralist insights for interrogating and subverting sedimented discourses of power. Such insights into the role of discourse and signifying practice can be an important liberating influence, especially with regard to overcoming the legacies of ethnocentrism, colonialism and racism within movement-building efforts. However, as even Nietzsche acknowledges and Derrida reaffirms, all thought and discourse must privilege some elements over others, unless we completely embrace a nihilism or stoicism without reprieve. I would therefore ask if there is a way in which the deconstructed text or argument may yet relaunch itself to inspire the emergence of a *shared* narrative of liberation, a narrative that fully takes into account *materiality and formation* at multiple levels—for example, 'nature', discourse, and social institutions—beyond discourse analysis alone.

Seyla Benhabib, in 'A Reply to Lyotard', presents a 'stylised' history of philosophical thought, as it has moved away from a model of mirroring nature involving the attempt to match concepts naively to external reality.[32] This movement began in the nineteenth century with the critique of the traditional subject. The Hegelian and Marxist traditions show that knowledge is a result of an active subject reworking and revealing the unfolding reality of itself and the world, rather than a passive subject transparent to itself. Nietzsche and Heidegger are associated with the critique of an object readily given to consciousness, in the will to power as knowledge of presence. A third and ultimately triumphant movement has focused on the complexities of

meaning introduced by the hidden structures of language, beginning with Charles Sanders Pierce and Ferdinand de Saussure, and developing prominently with the work of Derrida.

Similarly, Benhabib quotes Frederick Jameson's claim that postmodern philosophy turns ultimately on the question of political perspective, and she recounts Lyotard's earlier history as a member of the socialism or barbarism group, who became a disillusioned theorist of the relativity of 'language games'. However, as we have seen, the Habermasian critical theory perspective providing the basis for Benhabib's reply to Lyotard, has also come under the sway of the privileging of language, and has lost the revolutionary thrust of previous Marxist-oriented movements.

Here, it is tempting to stage another act of a certain polemic between radical and revolutionary thought and deconstruction. Judging from works such as *The Other Heading* and *Rogues,* a politics of the open end is not able to imagine social and political *forms* beyond capitalism and the state.[33] The only opening offered is that of a "messianism without messianicity" seen in Derrida's later writing on the themes of the gift, cosmopolitanism, and hospitality.[34]

Deconstruction may open up creative and affirmative possibilities for the strategic contest of hegemonic economic and political forces; but, however, in turning away from the spectres of Marx, of the Terror, of the failures of the New Left and of 1968 Paris, *deconstruction has remained within the texts of capitalism and the state.*[35] Developing *political* movements and counter-institutions that redefine democratic decision-making authority in a way that might confront the ongoing power dynamic of a MacMillan-Bloedel or Weyerhauser, does not appear on the horizon of the poststructuralist political imaginary, even though the challenges presented by climate

chaos to the fundamental tenets of capitalism have been increasingly recognised by writers outside of the orbit of deconstruction and Continental philosophy.

Perhaps Kant is right that polemic does not convince.[36] Instead, in the interests of exploring the possibilities for a more thorough philosophy of nature, as called for by Demeritt, one that may move beyond the limitations of environmentalism, deep ecology, and social constructionism, in the following chapters I examine concepts of nature as they emerge, especially within the writings of Bookchin, Derrida, and Malabou, beginning in the next chapter with an introduction to the life and work of Murray Bookchin.

Notes to Chapter 1

1. Laura Paddison. 'We Cannot Fight Climate Change With Capitalism, Says Report'. 20 September, 2019, accessed 12 November, 2019. www.huffpost.com.

2. Naomi Klein, *This Changes Everything: Capitalism vs. The Climate* (New York: Simon & Schuster, 2014).

3. See Matt Simon, interview with Jason Moore, 'Capitalism Made This Mess, and This Mess Will Ruin Capitalism'. 20 September, 2019, accessed 13November, 2014. www.wired.com.

4. See Joe Davidson. 'White terrorism is an international menace. We need a new strategy to fight it'. 27 September, 2019, accessed 19 October, 2019. www.washingtonpost.com; Dawn Stover, 'White nationalism's solution to climate change: fewer brown people', in Bulletin of the Atomic Scientists, 6 August, 2019, accessed 3 September, 2019, www.bulletin.org; Susie Cagle, 'Bees not refugees': the environmentalist roots of anti-immigrant bigotry'. 16 August, 2019, accessed 3 September, 2019, www.theguardian.com. In particular, see Matto Mildenberger, 'The Tragedy of the Tragedy of the Commons', 23 April, 2019, accessed 12 November, 2019. https://blogs.scientificamerican.com. Mildenberger writes, 'The man who wrote one of environmentalism's most-cited essays was a racist, eugenicist, nativist, and Islamaphobe—plus his argument was wrong'.

5. Sam Adler-Bell, 'Why White Supremacists Are Hooked on Green Living'. 24 September, 2019, accessed 15 November, 2019. www.newrepublic.com.

6. Quoted in Ibid.

7. Quoted in Ibid.

8. Ibid.

9. A number of recent books explore non-European perspectives on direct democracy and the rise of capitalism. More general accounts include: Robert Marks, *The Origins of the Modern World: A Global and Environmental Narrative from the Fifteenth to the Twenty-first Century.* 4th ed. (London: Rowman & Littlefield, 2015). Marks defines the modern world in terms of industry, the nation state, interstate warfare, and the growing gap between the wealthy and poor parts of the world, as well as increasing inequality in the wealthiest industrialised countries. He emphasizes the previously neglected roles of Asia, Africa and the New World in his global narrative, and places this narrative in an environmental context; Pankaj Mishra, *The Age of Anger: A History of the Present* (New York: Farrar, Straus & Giroux, 2017). Mishra presents a wide-ranging historical account of the roots of recent nationalisms and violence from both Western and non-Western sources. He locates these roots of anger in the alienation and displacement of those unable to realise the promised benefits of modernism of freedom, stability, and prosperity; see also Manisha Sinha, ed., *Contested History: Freedom, Race, and Power in American History* (New York: Columbia University Press, 2012); David

Kahane, ed., *Deliberative Democracy in Practice* (Vancouver: University of British Columbia Press, 2010); David Altman, *Direct Democracy Worldwide* (Cambridge UK: Cambridge University Press, 2011); and Stephen Stockwell and Benjamin Isakhan, eds., *The Secret History of Democracy* (New York, Palgrave, 2011). This literature forms an intellectual and historical context for my arguments for a more inclusive framing of social ecology theory, though it is beyond the more philosophical scope of my study to address it directly.

10. Soper, *What is Nature?*

11. Raymond Williams, *Problems in Materialism and Culture,* London, Verso, 1980, 68, quoted in Soper, 1.

12. Soper, 15.

13. Ibid., 26ff.

14. Andy Price, *Recovering Bookchin: Social Ecology and the Crises of Our Time* (Oslo, Norway: New Compass Press, 2012).

15. See in particular Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (New York: Routledge, 1990); and *Bodies that Matter: On the Discursive Limits of 'Sex'* (New York: Routledge, 1993).

16. Castree and Braun, *Social Nature.*

17. See David Harvey, 'Population, Resources, and the Ideology of Science'. *Economic Geography* 50 (1974): 256-77; and Neil Smith, *Uneven Development* (Oxford: Blackwell, 1984).

18. See Kay Anderson,'The Nature of "Race", *Social Nature,* 64-83; and Bruce Braun and Joel Wainwright, 'Nature, Poststucturalism, and Politics', *Social Nature,* 41-63.

19. David Demeritt, 'Being Constructive About Nature', in Castree and Braun, 22–40.

20. Donna Haraway, 'The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others', in L. Grossberg, C. Nelson, and P.A. Treischler, eds., *Cultural Studies* (New York: Routledge, 1992), 296. Quoted in Demeritt, 22.

21. Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991) 187. Quoted in Demeritt, 36.

22. Demeritt, 37.

23. Soper, 60.

24. Vogel, *Against Nature.*

25. Vogel, 167. It should be noted that my comments in this section are intended as a response to Vogel, and not as my independent assessment of the Frankfurt School in general. Indeed, the analysis put forward by Horkheimer and Adorno was pivotal to Bookchin's initial conception and presentation of social ecology.

26. See Murray Bookchin, *Defending the Earth: A Debate between Murray Bookchin & Dave Foreman* (Montreal: Black Rose Books, 1991).

27. Murray Bookchin, *The Philosophy of Social Ecology: Essays on Dialectical Naturalism* (Montreal: Black Rose Books, 1996) 23.

28. Bruce Braun and Joel Wainwright, 'Nature, Poststructuralism and Politics', in *Social Nature*, 41–63.

29. Judith Butler, Ernesto Laclau, and Slavov Zizek. 'Dynamic conclusions', *Contingency, Hegemony, and Universality: Contemporary Dialogues on the Left* (New York: Verso Press, 2000), 264.

30. Braun and Wainwright, 58-59.

31. Gayatri Chakravorty Spivak, 'Practical Politics of the Open End', in *The Post-Colonial Critic: Interviews, Strategies, Dialogues* (New York: Routledge, 1990). Quoted in Braun and Wainwright, 60.

32. Seyla Benhabib, 'Epistemologies of Postmodernism: A Rejoinder to Jean-François Lyotard', in Linda J. Nicholson, ed., *Feminism/Postmodernism* (New York: Routledge, 1990), 107-130.

33. See Jacques Derrida, *The Other Heading: Reflections on Today's Europe* (Indianapolis: Indiana University Press, 1992); and *Rogues: Two Essays on Reason* (Stanford: Stanford University Press, 2005).

34. See Jacques Derrida, *On Cosmopolitanism and Forgiveness* (New York: Routledge, 2003).

35. See also Jacques Derrida, *Spectres of Marx: The State of the Debt, The Work of Mourning, & the New International* (New York: Routledge, 1994).

36. See Immanuel Kant, *Critique of Pure Reason,* (1783), 'Transcendental Doctrine of Method: Section II—The Discipline of Pure Reason in Polemics.' J.M.D. Meiklejohn, trans. (New York: Dover Publications, 2003), 415ff.

Chapter 2: Murray Bookchin's life and work

Overview

This chapter presents a portrait of Bookchin's life and an in-depth presentation of his reading of natural history. I begin with an account of his life and his more recent connection with Abdullah Öcalan and the Kurdish freedom movement, a connection that has resulted in a popular re-emergence of his work to a certain degree, and a renewed appreciation of his legacy. I then investigate more closely his development of a "dialectical naturalism". The aim is to bring Bookchin's prescient insights on ecological threats and his comprehensive reconstructive social and political vision more fully into the conversations across the borders of contemporary philosophy, science, and revolutionary thought.

Biographical sources for Bookchin's life are relatively few. In the following account I draw minimally from the recent biography *Ecology or Catastrophe* by Janet Biehl, noting the considerable reservations towards this biography—especially the latter part—held by Bookchin's family, and other members of the social ecology community.[1] In addition, I draw from accounts by Bookchin's daughter Debbie Bookchin[2] and his wife Bea Bookchin, as well as from an article by the Dutch labour historian Marcel van der Linden[3], and from an outstanding master's thesis by Aaron Hyams that focuses on the early life and work of Bookchin up to the publication of his *Post-Scarcity Anarchism* in 1971.[4]

Murray Bookchin was born in the Bronx in 1921 to pre-Bolshevik Russian revolutionaries. His mother was abandoned by her husband when Murray was a young boy; after his grandmother's death, when he was nine, they were often impoverished. Around the same time, in 1930, he became a member of the Communist youth organisation, Young Pioneers of America. At thirteen, he joined the Young

Communist League. The youth members were expected to have read *The Communist Manifesto* and many other texts, and they were sent into the streets to sell the party paper. In addition, the group supported labour union efforts. As a young radical, Bookchin spoke and debated in such venues as Crotona Park. He recalls that in the 1930s:

> I began to actually speak from what you'd call soap boxes today. In the meantime I tried to earn my livelihood selling newspapers and carrying ice cream on my back in Crotona Park in a huge kind of insulated box—being chased by the police, incidentally, because it was illegal in those days to sell ice cream—that was the privilege mainly of little stands and concessions that the park department gave to people. So even from the age of thirteen and fourteen, as a worker, I began to earn my own bread and cheese.[6]

Bookchin graduated from high school, and worked for four years as a foundryman in northern New Jersey, becoming active as a labour organiser for the Congress of Industrial Organizations (CIO). Bookchin served in the US Army during the mid-1940s, later recalling opposing anti-Semitism in the military, even at times through violent confrontations with Army personnel who made anti-Semitic remarks.[7] He then returned home to work as an autoworker, becoming highly active in the United Auto Workers (UAW), one of the more libertarian unions of the time.

He left the communist party following the Hitler-Stalin pact of 1939. Though initially aligning himself with the American Trotskyists, he became alienated by the Bolshevist authoritarianism that characterised even these dissident communist groups. After participating in the General Motors strike of 1945–48, he became further disillusioned with traditional Marxist notions of the "vanguard" role of

the working class. Bookchin identified himself as a libertarian socialist and began an association with a group of dissident German Marxists in New York City, the International Kommunisten Deutschlands, or IKD, whose members were developing a critique of orthodox models of the working class as the revolutionary subject. This association with the IKD was to have a pivotal influence on the development of Bookchin's thought.

Bookchin published many of his earliest articles in the publications associated with the IKD, the German-language *Dinge der Zeit,* and the English-language *Contemporary Issues,* using the pen names M. S. Shiloh, Lewis Herber, Robert Keller, and Harry Ludd. In 1952 he wrote an article for *Contemporary Issues* entitled "The Problem of Chemicals in Food."[8] In this article, Bookchin opposes the move to large-scale industrial agriculture, where the land was now "to be exploited like any other resource". He voices one of the first warnings of the dangers of the mounting accumulation of greenhouse gases in the atmosphere.

In an influential 1964 essay, "Ecology and Revolutionary Thought", Bookchin seeks to wed ecology and "classical" or "social" anarchism. In "Toward a Liberatory Technology" he advocates a new ecotechnics using alternative and renewable energy sources and microtechnologies as part of a decentralised and locally controlled infrastructure of a liberatory and ecological society. In "A Note on Affinity Groups" he highlights the anti-hierarchical unit of political organization employed by the Spanish anarchists, a model that was to have significant influence on subsequent organising movements through not only the theoretical exploration but also through the active participation of Bookchin and other social ecologists in the anti-nuclear Clamshell Alliance. In "Listen Marxist!", he mounts a sharp attack on Marxism-Leninism, and attempted to warn members of the Students for a Democratic Society (SDS) of an imminent takeover by the Progressive Labor Party, a Maoist group. These and other

essays were collected into the anthology *Post-Scarcity Anarchism,* first published in 1971.[10]

Working with the IKD exposed Bookchin to Josef Weber, someone whose ideas became very important in the development of Bookchin's thought. Indeed, Bookchin dedicates his best-known early work, *Post-Scarcity Anarchism,* published in 1971, partially to Weber, who, according to Bookchin "formulated more than twenty years ago the outlines of the Utopian project developed in this book".[11]

Weber had fled Germany for Paris in 1933 and later New York, where he was the central figure in the IKD. By 1945-46 Weber and his supporters had abandoned the principles of Trotskyism for what became known as the "retrogressive movement theory". Weber argues that capitalism had passed its peak, and because of the labour movement's failure to subvert the system, had entered a period of retrogressive change. Weber's theory has been presented by means of eight key points: First, the labour movement has failed to achieve the downfall of capitalism, and has become thoroughly corrupted. Second, the fact that capitalism has passed its peak and entered a phase of decline means that timely action is required to halt the trend towards barbarism in the form of political, economic, and cultural disintegration. Third, this decline is marked by the remobilisation of earlier pre-modern and early modern forms of capitalism, such as semi-feudal forms of organisation. Fourth, the declining capitalist society is increasingly developing forms of ecological self-destruction. Fifth, the cultural trends are leading to low levels of philosophical-moral content in literary, musical, and artistic production, and a decline in the intellectual force and critical function of science and current philosophy. Sixth, the solution is to mobilise the majority of the world's population, which does not benefit from these trends. Because of the potential for surpluses, protest is no longer organised around problems of scarcity, but around interests shared by an overwhelming majority against a tiny minority. Seventh, the mobilisation must emerge as a worldwide movement for a "democracy of content" that goes beyond traditional bureaucratic political organisation around parties. Eighth, the movement for a

democracy of content must develop a concrete democratic alternative to capitalist society.

Van der Linden claims that Bookchin's *Post-Scarcity Anarchism* embodies seven of the eight elements from Weber's analysis. Bookchin departs from Weber only in stating that the science of ecology can come to express a critical function, thus constituting an exception to Weber's pessimistic view of the "dwindling force of cognition in bourgeois society." This exception for ecology allows Bookchin to evolve from a "half-Trotskyist" to a social anarchist and a social ecologist, according to Van der Linden.

In later years a debate ensues between Marcel van der Linden and Bookchin's partner and close colleague, Janet Biehl, as well as among other social ecologists, on the importance of Josef Weber's thought to the development of Murray Bookchin's social ecology. Van der Linden argues that Bookchin was greatly indebted to Weber, and deviates only in one seemingly small respect from Weber's eight theses in arguing that the science of ecology alone escaped capitalism's cooptation of the revolutionary potential of sciences and philosophies (Weber's fifth thesis). Biehl responds that Bookchin and Weber mutually influenced each other and that Bookchin was drawn to Weber partly as a father figure rather than as a philosophical mentor. Aaron Hyams argues that the truth lies somewhere between these two positions; however, his elucidation of the significance of Bookchin's critique of Weber's fourth thesis as it developed in the late 1970s into the former's embrace of anarchism shows clearly the limitations of Van der Linden's argument in particular.[12]

Hyams traces Bookchin's evolution from a "libertarian socialism", the term adopted by Bookchin during his alliance with Weber, to anarchism and social ecology. In important respects, Weber's post-Trotskyist views seem similar to core tenets of classical anarchism, in terms of their revolutionary critique of centralised power structures and the call for decentralised, democratic, and communal forms of social and political organisation. Bookchin, like other post-Stalinist Marxists of

the time, looks to Marx's theory of alienation in *Philosophical Manuscripts of 1844.* Marx had identified not only the alienation of the worker and capitalist boss, but also the alienation of the worker from the commodity in the process of production. In supporting Weber's fourth thesis that capitalism increasingly developed ecologically destructive tendencies, he emphasises the alienation from nature resulting from such a reified process of production.

However, Marx envisions the revolutionary overcoming of the centralised bourgeois state with the proletarian state, with urban industrial workers awakened by class consciousness to this destiny, and disciplined by industrial work to the demands of this task. Bookchin does not believe that any segment of society could be entrusted with such centralised power, and that such delegation would result in the replacement of one set of elites by another, as had occurred in the case of the brutal and authoritarian communism of the Soviet state.

Further, both Weber and Bookchin at the time accepted a kind of neo-Malthusian view of scarcity. The British scholar Thomas Malthus had based his analysis of the problem of scarcity on the premise that food supplies increased arithmetically, while populations increased geometrically. Marx, however, could not have foreseen the way in which the problem of scarcity could be overcome by the development of the productive resources of modern society.

Both Weber and Bookchin bring a post-scarcity orientation to political theory, but the solution for Bookchin enables him to overcome Weber's pessimism that no social forces had the revolutionary potential to overcome the way in which capitalism had deeply instilled competitive "instincts". Weber's pessimism was sustained partly by the recognition of the success of capitalism in absorbing and co-opting challenges. The capitalist system absorbed the effect of Darwin's evolutionary theory in undermining the authority of the church, which had served as the principle means of bourgeois cultural control, by adapting to atheism (or, we might add, by resorting to various forms of creationism).

Further, the system had absorbed the challenge of Marxism by granting a degree of worker's rights and "domesticating" proletarian movements toward goals of self-advancement. Science, according to Weber, had increasingly become another instrument of social control.

Bookchin argues that the science of ecology must escape this trend, insofar as it is not based on abstract arguments in theoretical space, but presents undeniable evidence that accumulating ecological destruction threatens the very existence of all elements of society. He bases the decentralized program of social ecology partly by drawing from the British ecologist Charles Elton. Elton, drawing in turn from Ernst Mayr, had shown how evolutionary forces led to increasing diversity within ecosystems, a diversity that enabled greater resilience to climate and other ecological threats, than did the monocultures of industrial agribusiness.

In addressing the issue of what sectors might come to take the place of the co-opted industrial proletariat as revolutionary agents, Bookchin's study of Proudhon, Bakunin and other anarchists enables him to overcome the class-based analysis that still obscured Weber's views. In his historical studies Bookchin notes that revolutionaries in the case of the French and Russian revolutions did not emerge from the working classes but rather from peasants and artisans fighting to preserve their way of life. This insight allows Bookchin to move beyond Weber's pessimistic meditation on the implications of his second and third theses. Revolutionary impulses could be drawn from cross-class sources. They did not require being drilled and disciplined by a revolutionary vanguard, but could arise in a relatively spontaneous fashion, as claimed by Bakunin. Cross-class revolutionary impulses would increase as capitalism threatened not only environmental degradation, but the very existence of human society and more complex life-forms, something even Weber did not envision.

It can be argued that Hyams overemphasises Bookchin's study of Mikhail Bakunin and underemphasises the role of Peter Kropotkin in the evolution of his movement toward anarchism in the

1970's. Kropotkin's views on mutualism and decentralisation, and his opposition to social hierarchy profoundly influenced Bookchin, who then proceeds to think through and propound a concrete political project based on this social orientation. In later years, however, Bookchin becomes concerned about the neglect of the importance of a law-governed society in Kropotkin's *The Conquest of Bread.* This neglect in Kropotkin's writings, together with the failure of the Spanish anarchists to meet the challenges of governance as they were essentially outmanoeuvred by Franco's forces toward the end of the period of the Spanish Revolution, and the individualistic character of "lifestyle anarchism" in the US at the time, contributed to his abandonment of anarchism and adoption of "communalism" by the mid to late 1990s. As examined more closely in my final chapter, Bookchin sees communalism as the "democratic dimension of anarchism", more explicitly directed to social and not merely individual liberation.

At the time of *Post-Scarcity Anarchism,* Bookchin also looks to the revolutionary potential of the New Left, the Anti-War movement, and the counterculture of the late 1960s and the 1970s in the US. Those who populated these developments had not been born into the scarcity that had shaped the outlook of previous generations; they were indeed, contrary to Weber's views, capable of overcoming the competitive instincts that capitalism bred.[13]

In 1974 Bookchin co-founded the Institute for Social Ecology (ISE) in Plainfield, Vermont, along with his friend and colleague Dan Chodorkoff. The ISE attracted students internationally, with its advanced courses on ecophilosophy, social theory, ecofeminism, ecotechnologies, bio-regional agriculture, community based health, and activist art in community. Bookchin, along with colleagues and students from the ISE, was active in the antinuclear movement during the 1970s (and beyond), participating in the Clamshell Alliance that opposed the Seabrook nuclear reactor in New Hampshire. Social ecologists active in the Clamshell Alliance in Vermont influenced later activism through their

emphasis on non-hierarchical forms of organising.

Major Publications

Bookchin continues his study of urban social and ecological issues from a radical political lens with his 1974 book, *The Limits of the City.*[14] In 1977 he publishes *The Spanish Anarchists,* a history of the Spanish anarcho-syndicalist movement from its origins to the mid-1930s.[15] In essays written in the 1970s he critiques the limitations of the ecology movement of that time, distinguishing the radical and creative potential of ecology from the shallow, instrumentalist perspective of reformist environmentalism on the one hand, and mystical and misanthropic elements of "deep ecology" on the other. These essays were collected into the 1981 publication *Toward an Ecological Society.*[16]

In 1982 Bookchin publishes *The Ecology of Freedom,*[17] which argues on the basis of historical and anthropological research that the project of dominating nature arose from the domination of human by human, as systems of domination such as gerontocracies, patriarchies, and warrior societies emerged and became institutionalised. The 'epistemology of rule' established by these systems of domination existed in a historical dialectic with the 'legacies of freedom' represented by movements of resistance and revolution, as well as by alternative, more democratic forms of social organisation, such as the confederated municipalities of the Hanseatic League and the Italian city-states. *The Ecology of Freedom* widened the scope of the revolutionary project well beyond that of the Marxist goal of abolishing class exploitation to that of overcoming social hierarchy *as such.*

The Rise of Urbanisation and the Decline of Citizenship, originally published in 1986,[18] further explores the history of civic self-management, direct or face-face democracy, and confederalism. This work traces a history of radical democracy in the Western tradition from ancient Greece, through medieval and later confederated city-states, to popular institutions in the American and French

revolutions. The concluding chapter presents an exposition of the political project of social ecology, which Bookchin terms libertarian municipalism, as well as a sketch of how such a politics might take shape in a city Bookchin knew well, Burlington, Vermont. This project envisioned the development of municipal assemblies that would enact direct democracy within a revitalised public sphere as the fundamental basis of decision-making authority, while other democratic bodies would carry out administrative functions in accordance with the decisions of the local assembly. Gradually, the economy would become municipalised rather than nationalised. As these assemblies became established over wider regions, they would confederate, until they gained sufficient strength to constitute a dual power that could challenge the nation state.

In addition, in 1996 Bookchin publishes a book he considered one of his most important works, *The Philosophy of Social Ecology.*[19] The essays in this work comprise an important statement of the philosophical basis for social ecology, and are discussed extensively next. In the latter years of his life Bookchin devotes most of his time to his four-volume history of revolutionary movements, *The Third Revolution.* Volume I is devoted to a history of the American and French revolutions, volume II to the French revolutions of the nineteenth century, volume III to the Russian revolutions of 1905 and 1917, and the final volume to the central European and Spanish revolutions.[20]

In the mid-1990s Bookchin begins to question his earlier identification with anarchism as a framework for his political approach, believing it too entrenched in individualism. In 1995, he writes *Social Anarchism or Lifestyle Anarchism: An Unbridgeable Chasm,* a challenge to what he regarded as the ad hoc adventurism and personalistic ethos of the style of anarchism prevalent in the US at the time.[21]

Bookchin's Ongoing Influence

Though in later years Bookchin embraces the term communalism for his project, he never renounces the core principles of a social anarchism that had consolidated in his work by the late 1970s. Nor, for that matter, does he ever fully renounce elements of Marxism, particularly its dialectical outlook. He had long seen his project in historical terms, as one of making Marx's brilliant 19th Century revolutionary critique of capitalism relevant for our time.

Perpetually engaged in rethinking his own politics and avoiding stagnation or dogmatism, Bookchin breaks off former relationships and forges new connections. Bookchin's distance from many of his contemporaries came from his "take no prisoners" argumentative stance bred by formative experiences with the intense debates in NYC revolutionary circles in his younger days, as well as from his personal ambition to be and to remain unique. He tended to be most critical of the "near enemy"—those whose views might seem to approximate his own, but for crucial differences he discerned.

Bookchin's daughter Debbie summarised Bookchin's life and influence in an article for the New York Review of Books:

> Over the years, some of Bookchin's theories about affinity groups, popular assemblies, eco-feminism, grassroots democracy, and the need to eliminate hierarchy were taken up by the antinuclear campaign, antiglobalization activists, and eventually the Occupy movement. These groups incorporated Bookchin's ideas—often unaware of their origin, perhaps—because they offered ways of acting and organizing that prefigured the social change they sought.[22]

In April of 2004, when he was eighty-three years old, Bookchin unexpectedly receives a letter

from an intermediary writing on behalf of the jailed Kurdish activist Abdullah Öcalan, head of the Kurdistan Workers' Party (PKK). As its co-founder, principle theoretician, and leader, Öcalan had acquired a significant reputation—but nothing about his (earlier) Marxist-Leninist ideology seemed in any way to resemble that of Murray Bookchin.

Founded in 1978 as a revolutionary Marxist-Leninist organisation, the PKK had for thirty years been waging an insurgent war on behalf of the almost fifteen million Kurds living in Turkey who have suffered a long history of violence. For decades, Turkey has prohibited Kurds from speaking their own language, wearing customary dress, using Kurdish names, teaching the Kurdish language in schools, or even playing Kurdish music. Kurds have routinely been arrested and tortured for any expression of their cultural identity or for opposition to Turkey's one-flag, one-people, one-nation ideology, which originated in the early twentieth century and has endured under the authoritarian rule of President Recep Tayyip Erdoğan and his Islamist party.

Like other national liberation movements of the 1970s, the PKK was originally founded to win an independent Kurdish state. It sought to unite the Kurds, whose homeland for some five thousand years, a swath of land known as Kurdistan, had been arbitrarily divided between Turkey, Iran, Iraq, and Syria in the aftermath of World War I. Since its founding, Öcalan has been the PKK's ideological and organisational leader.

Öcalan read *The Ecology of Freedom* while in prison, and agreed with its analysis. In his own book *In Defense of the People*, published in German in 2010 (forthcoming in English), Öcalan writes,

> The development of authority and hierarchy even before the class society emerged is a significant turning point in history. No law of nature requires natural societies to develop into hierarchical state-based societies. At most we might say there might be a tendency. The Marxist

belief that class society is an inevitability is a big mistake.[23]

Bookchin's emphasis on hierarchy becomes a crucial aspect of Öcalan's efforts to redefine the Kurdish problem. In *The Roots of Civilization*, Öcalan's first published volume of prison writings, he, too, traces the history of early communitarian societies and the transition to capitalism. Like Bookchin, he focuses renewed attention on the formation of early societies in greater Mesopotamia, the cradle of civilisation and birthplace of art, written language, and agriculture. Öcalan argues that the powerful kinship ties that remain a fixture of Kurdish family life—the traditional relationships of extended families, and folk culture—could provide a foundation for a new ethical society that melds the best aspects of Enlightenment values of individual rights and responsibilities with a communal and ecological sensibility.

Öcalan goes further than does Bookchin in the trans-historical significance he places on patriarchy. Bookchin had examined how hierarchies originated from the need of the elders in society to preserve their power as they aged by institutionalising their status in the form of shamans, and later priests—a process that incorporated the domination of women by men. Öcalan, though, sees patriarchy as a defining characteristic of human civilisation, one whose entrenched nature requires a thorough transformation at multiple levels, on the part of individual men as well as in institutionalised power relationships.

Murray Bookchin died on 30 July, 2006, at the age of eighty-five, about two years after Öcalan's intermediaries had contacted him. Arthritis had made it impossible for him to sit before a computer and type, so his correspondence with Öcalan ended after the exchange of two letters from each side. In his last letter, Bookchin sent his best wishes to Öcalan and wrote:

> My hope is that the Kurdish people will one day be able to establish a free, rational society that will allow their brilliance once again to flourish. They are fortunate indeed to have a leader of Mr. Öcalan's talents to guide them.[24]

Upon Murray Bookchin's death, the PKK issued a two-page statement hailing him as one of the greatest social scientists of the twentieth century. He introduced us to the thought of social ecology, and for that he will be remembered with gratitude by humanity," the statement's authors wrote. "We undertake to make Bookchin live in our struggle. We will put this promise into practice as the first society which establishes a tangible democratic confederalism."[25]

A Reading of Natural history

After reviewing Murray Bookchin's life and influence, I now examine Bookchin's thesis that an understanding of nature can provide an objective ground for an ecological ethics, by exploring his philosophy of nature from which this claim emerges.

Murray Bookchin began writing about pressing aspects of the ecological crisis as early as 1952, in an article on "The Problem of Chemicals in Food." In this lengthy article, Bookchin opposes large-scale agriculture (as noted previously), arguing that only the small-scale farmer, with "personal familiarity, with fairly extensive experience and understanding" of the specific local ecological situation, could intervene responsibly without causing irreparable damage.

A decade later, in *Our Synthetic Environment*, Bookchin begins to outline the dangers of an inadequately thought-out nature philosophy:

> Understandably, a large number of people have reacted to the nonhuman character of our synthetic environment by venerating nature as the only source of health and wellbeing. . . . The more man's [sic] situation approximates that of his primitive forebears, it is thought, the more he will be nourished by certain quasi-mystical wellsprings of health and virtue. In view of the mounting problems created by our synthetic environment, this renunciation of science and technology—indeed of civilization—would be almost tempting if it were not manifestly impractical.[24]

In 1964, in *Ecology and Revolutionary Thought,* Bookchin articulates a vision of the revolutionary potential of ecology, 'an integrative and reconstructive science' which sought 'the harmonisation of nature and man'. This harmonisation demanded an understanding of the lessons of a study of the natural world, especially 'organic differentiation'. He observed that the 'mechanical standardization' of modern society was reducing this differentiation, simplifying nature as well as society as an ecosystem. Rather than calling for the pretensions of mastery over nature, Bookchin calls for the conscious fostering of diversity in the natural world, through the concurrent social development of diverse, decentralised, spontaneous and variegated human communities.[25]

Through the 1970s, Bookchin continues to develop his radical ecological vision, distinguishing it sharply from an environmentalist approach. Environmentalism in his view seeks to diminish the hazards caused by the project of dominating nature, while avoiding and obscuring the question of the very notion of dominating nature itself. Ecology, in contrast

> is an artful science, or scientific art, and at its best, a form of poetry that combines science and art in a unique synthesis. Above all, it is an outlook that interprets all interdependencies (social and psychological as well as natural) non-hierarchically.[26]

With regard to the ecosystem, Bookchin notes that ecologists have observed that the more simplified an ecosystem—as in arctic and desert biomes or in monocultural forms of food cultivation—the more fragile the ecosystem and more prone it is to instability, pest infestations, and other potential catastrophes. As he later came to emphasise, these simplified ecocommunities also offer fewer evolutionary pathways.

Bookchin calls for the application to ecological thinking of the Hegelian notion of *unity in diversity,* which begin to appear frequently in more reflective ecologically oriented writing. He highlighted the need for a conscious appreciation of the spontaneity of the natural world, a world he considered much too complex and to be reduced to simple mechanical properties.

Bookchin refers to non-hierarchical social communities as 'organic communities'. He quotes the anthropologist Dorothy Lee from her study of the Wintu peoples of California, the Hopi of the Southwest, and the Algonkians of the North American forests:

> [E]quality exists in the very nature of things, as a byproduct of the democratic structure of the culture itself, not as a principle to be applied. In such societies, there is no attempt to achieve the goal of equality, and in fact there is no concept of equality. Often, there is no linguistic mechanism whatever for comparison. What we find is an absolute respect for . . . all individuals irrespective of age and sex.[27]

In "What is Social Ecology" Bookchin stresses that social ecology challenges the way in which a necessitarian view of nature is used to justify social hierarchy and domination:

> More than any single notion in the history of religion and philosophy, the image of a blind, mute, cruel, competitive, and stingy nature has opened a wide, often unbridgeable chasm between the social world and the natural world and, in its more exotic ramifications, between mind and body, subject and object, reason and physicality, technology, and "raw materials", indeed the whole gamut of dualisms that have fragmented not only the world of nature and society but the human psyche and its biological matrix.[28]

Social ecology, according to Bookchin, negates this harsh image of the natural world without dissolving the social into the natural, as in sociobiology, or by imparting mystical properties to nature that place it beyond the realm of rational insight. Social ecology seeks to radicalise the understanding of nature by questioning the marketplace images of nature as a set of natural resources created by competitive forces of natural selection, and offering instead an understanding of nature as a participatory realm of interacting life-forms. The most outstanding attributes of such lifeforms are fecundity, creativity and directiveness, marked by a complementarity that renders the natural world the *grounding* for an ethics of freedom rather than domination. Rather than simply a form of metabolic matter passively awaiting external forces and mechanically shaped by them, according to social ecology life is *active, interactive, procreative, relational, and contextual.* The logic of differentiation makes it possible to relate the mediations of nature and society into a continuum. The "underlying fact" of wholeness makes unity and diversity in nature more than a suggestive metaphor—not a wholeness signifying a finality or totality, a "reconciliation" of all Being in a complete identity of subject and object—but one reflecting varying degrees of the organic unfolding of the wealth of particularities latent in the as-yet-undeveloped potentiality.

In "Freedom and Necessity in Nature"[29] Bookchin elaborates on the notion of a participatory evolution. He claims that Darwin never fully organicised evolutionary theory. Informed by the Lockean atomism that nourished nineteenth century British science, Darwin and his acolytes treated species as phenomena somewhere between inorganic machines and mechanically functioning organisms. Darwin portrayed the development of individual species such as *Eohippus* in "lofty isolation" from the life-forms other than prey and predators that normally interact with it and with which it is interdependent. Participatory evolution in contrast, emphasises the contextual reality of the ecology of species development. The horse lived among not only its predators and food but also in creatively interactive relationships with a great variety of plants and animals; it evolved not alone but in ever-changing ecocommunities. The rise of *Equus caballus* occurred conjointly with that of other herbivores that shared and maintained their grasslands, and even played a major role in creating the grassland environment. Participatory evolution enriches evolutionary theory by placing the evolution of ecocommunities at the forefront, while not denying the unique lines of development of species.

Participatory evolution thus highlights the way in which the growing choices conferred by complexity and the alternative pathways opened up by the growth of complex ecocommunities led to the development of increasingly complex neurological systems. The human brain has its evolutionary history in the natural world, and as the neurological capability of lifeforms to function more actively and flexibly increases, so too does life help create new evolutionary directions that lead to enhanced self-awareness and self-activity, as life-forms increasingly become active agents in their own evolution.

Spontaneous development in nature must be allowed to unfold its wealth of potentialities, though guided by human consciousness (as nature rendered self-conscious and self-active), in a manner akin to 'steering a boat'. Bookchin modifies Johan Fichte's remark that humanity is nature rendered self-conscious to emphasise that humanity has this status and stewardship role only potentially—

because humanity and society remain quite irrational and even are 'cunningly dangerous to ourselves and all that lives around us'.[30] All that lives in an ecocommunity contributes its coequal and non-hierarchical role in maintaining the balance and integrity of the whole, manifesting the principles of unity in diversity, spontaneity, and complementarity. The principles inform not only ecology as an 'artful science', but a sensibility recovered from non-hierarchical communities and placed in a new social context.

From First to Second Nature to a 'Free Nature'

Though Bookchin thus challenges the notion of human mastery over the rest of the natural world, he strongly opposes the "deep ecology" abstraction of humanity from nature as a purely destructive element. Deep ecology proponents have called for a movement toward self-realisation of the larger Self as the whole of both humanity and nature and a commitment to non-interference in nature by humanity. In 'Social Ecology versus Deep Ecology' Bookchin argues that if a biospheric egalitarianism is broadly defined as a universal whole, then 'a unique function that natural evolution has conferred on human society dissolves into a cosmic night that lacks differentiation, variety, and a wide array of functions'.[31] If humanity is abstracted into a humanity that 'accurses the natural world', the natural world itself becomes separate and abstracted, rather than an 'evolutionary development that is cumulative and includes the human species'.[32] Humanity has evolved the capacity to form conscious communities that are not genetically programmed, but can be radically changed—including in ways that can benefit the natural world. Humanity's social evolution is distinct as a '*second* nature', a new evolutionary pathway in natural evolution, though it is prefigured within a graded continuum of increasingly active responses of organisms in shaping their environments.

Traditionally in social thought according to Bookchin, the relationship between nature and humanity has been seen as antagonistic. As we have noted, the domination of nature by humanity in the Marxist and liberal tradition is seen as necessary to overcome the domination of humanity by nature. The "taming" of a wild and indifferent nature—the realm of necessity—by human skills and technology is seen as essential for the progress of civilization. Bookchin seeks to overcome this *a priori* antagonistic framework by showing that it is *natural* for humanity to create a second nature out of first nature, as part of a creative evolutionary continuum. Both biocentrism and anthropocentrism can be overcome, if it can be seen that second nature and first nature need not be antagonistically opposed in thought or in practice. It becomes possible to conceive of a "third nature" or "free nature", wherein humanity lives in creative harmony with other humans and with the non-human natural world, fostering its processes of differentiation and its diverse evolutionary pathways toward increasingly more complex nervous systems, the biological basis for increasing consciousness, choice, and potential freedom.

A Dialectical Naturalism

The pathway towards a free nature as the purposeful goal of a continuity of process from the simplest evolutionary form to the most complex is illuminated by a dialectical conception of ecology, and an ecological conception of dialectic. Just as the child lingers on in the adult, the evolution of nature is a cumulative process. The dialectical tradition allows a '*building up* the differentia of natural and social phenomena from what is implicit in their abstract level'.[34] The dialectical interpretation of the science of ecology, as Andy Price observes, opens up the possibility of 'a concept of evolution as the dialectical development of ever-variegated, complex, and increasingly fecund *contexts* of plant-animal communities' as opposed to 'the traditional notion of biological evolution based on the

atomistic development of single life forms'.[35] Through the opening of a greater variety of evolutionary pathways within ecosystems or ecocommunities that are able to maintain their diversity, individual organisms are presented with 'a dim element of choice', and from this, they began to play an increasingly *active* role in their own evolution. Rather than competition for the survival of the fittest, the key concepts of natural evolution for Bookchin are 'participation and differentiation'. Bookchin's dialectical interpretation of ecology calls attention to "the compensatory manner by which animals and plants foster each other's survival, fecundity, and well-being'. Once natural evolution is seen as united by this logic of differentiation,

> [t]he possibility of freedom and individuation is opened up by the rudimentary forms of self-selection, perhaps even choice, if you will, of the most nascent and barely formed kind that emerges from the increasing complexity of species and their alternate pathways of evolution. Here, without doing violence to the facts, *we can begin to point to a thrust in evolution that contains the potentialities of freedom and individuation.*[36]

We can thus begin to see the emergence of a 'sense of self-identity, however germinal, from which nature begins to acquire its rudimentary subjectivity', a subjectivity that extends itself beyond self-maintenance 'to become a *striving* activity, not unlike the development from the vegetative to the animative, that ultimately yields mind, will, and the potentiality for freedom'.[37] Dialectic 'explains, with a power beyond that of any conventional wisdom'[38] how the organic flow of first into second nature is a re-working of biological reality into social reality.

According to Bookchin, the counterpart to a dialectical understanding of ecology is the understanding of how evolution, dialectically understood, provides a new ground on which to base an

ethics for society and nature. Dialectic thus becomes far more than a method of thought. Nature's striving towards increasingly complex and self-conscious life forms provides a *potentiality* on which norms can be built. These norms can then be formulated as the actualisation of the potential "is" of natural evolution 'into an ethical "ought" [. . .] anchored in the *objective reality of potentiality itself'*.[39] Nature's thrust towards self-reflexivity may then provide a radical and far-reaching contrast and basis for critique of the current 'is' of the irrational anti-ecological society. For Bookchin, growth, change, and diversification in nature never reach an end point but are ever present. Investing dialectic with an ecological understanding divests dialectic of its earlier teleological interpretations as a movement towards Absolute Knowledge, as with Hegel, or towards a communist society as with Marx and Engels. Therefore, bringing nature into the foreground of dialectical thought 'can ventilate the dialectic as an orientation toward the objective world by rendering it coexistent with natural evolution.'[40] An ecologised dialectic thus overcomes the limitations of previous idealistic or materialistic approaches to dialectic.

For Bookchin, the process of natural evolution as a whole ultimately provides 'certain premises' for the emergence of social life, 'the institutionalisation of the animal community into a potentially rational, self-governing form of association'.[41] In addition, the thrust of natural evolution in terms of the ever-greater complexity of the nervous system and brain also provides the necessary processes for the emergence of reason itself. This ensemble of ideas reflects the emergence of selfhood, reason, and freedom *from* nature, rather than in sharp opposition to nature. Natural evolution, fully aware of itself in the form of a humanity that has fulfilled its potentiality, could create a fully ecological society, wherein humanity and nature retain their specificity yet mutually reinforce each other: nature would re-enter humanity in the lessons of a full understanding of natural evolution, and humanity would re-enter nature as the most conscious guide of its immanent striving. Humanity could lead in creating an

ecological society, one that would transcend first and second nature into the new domain of a *free* nature.[42]

The Philosophy of Nature in the Intellectual Context of Modern Scepticism

The suspicion and scepticism surrounding a philosophy of nature in the social constructionist context is not a new development. Murray Bookchin in his essay 'Toward a Philosophy of Nature'[43] referred to the 'prejudices' against such a project; the essay provides another examination and closer look at Bookchin's thinking:

> Today, virtually all nature philosophy is burdened by a massive number of stultifying prejudices, but the worst of these prejudices fester precisely in the academy. There, any conjunction of the words nature and philosophy automatically evokes fears of antiscientific archaisms and premodernist regressions to a static cosmological metaphysics.[44]

In the essay, Bookchin calls for a renewed appreciation of the Pre-Socratic 'archaic' background of the Western philosophical tradition. He comments on the way in which the positing of Cartesian mechanism as the original sin that distorted the modern image has been overstated for programmatic reasons, to avoid singling out the "dubious subjectivism" of Kant, evident in the "quasi-religious transcendentalism now burgeoning in so much 'anti-mechanistic' thinking". Bookchin acknowledges Heidegger's exploration of the founding thinkers of Western philosophy, but dismisses Heidegger sternly:

> Ontology understandably bears a fearsome visage when it lacks a social and moral context, and the concept of Being loses contact with reality when it is subtly assimilated to subjective approaches to reality like Heidegger's.[45]

Bookchin values Ionian, Eleatic, Heraclitean, and Pythagorean thinkers not so much for their specific speculations as for their intentions and the kind of unities they attempt to foster. The themes of Being, Form, Motion, and Causality are infused with moral meaning. Crucially, Pre-Socratic philosophers assume the ability to know the world because it is orderly and intelligible, and lends itself to rational interpretation because it is rational. As noted previously, Bookchin criticises contemporary ecological philosophy, including Batesonian systems theory, as captive within the "Kantian trench" that excludes the *onta* constituting the substantial underpinnings of nature philosophy and turns philosophy instead towards the question of the nature of knowing. Bookchin also criticises the limitations of Bertalanffy's 'general systems theory', which attempts to replace a closed cybernetic systems theory with a more open one, as ultimately mechanistic. In particular, he claims that general systems theory is unable to account adequately for evolutionary change and development, relying on a passive interpretation of natural selection and an emphasis on *interaction* rather than *development.*

Bookchin argues that a "presuppositionless" philosophy is a myth. Overcoming "subjectivistic" approaches to nature and approaches based on an ultimately mechanistic systems theory requires us to formulate new premises that provide coherence and meaning to natural evolution. The truth of a nature philosophy will lie in the faithfulness and adequacy of its account of the evolutionary unfolding of nature as it grades into social evolution and ethics. The first presupposition is that we have the right to attribute properties to nature based on the best of our knowledge—that certain attributes and contexts are *self-evident* in nature. Bookchin comments, 'This assumption is immediately problematic for a vast

number of academic philosophers—although, ironically, it is no problem for most scientists'.[46] Although 'the great Renaissance notion' that matter and motion are the most underlying properties of nature has changed as our understanding of the meaning of these terms has changed, it remains a prevalent scientific assumption.

Bookchin cites a non-scientific source—Denis Diderot in *D'Alembert's Dream*—for the articulation of one crucial transformation of the meaning of matter and motion. Diderot proposes the notion of *sensibilité,* an internal *nisus* commonly translated as "sensitivity." Bookchin sees this notion as identifying an immanent fecundity of matter, as distinguished from motion as mere change of place, and as a marked advance over the prevalent mechanism of La Mettrie, anticipating not only nineteenth-century theories of evolution but recent developments in biology. Diderot's *sensibilité* offers an active concept of matter, though the title *D'Alembert's dream* forewarns readers of his doubt of his story, given the limited scientific knowledge of the time.

Bookchin offers more recent scientific research that may be seen to support the notion of matter's 'sensitivity', as it develops in terms of increasing complexity from the atomic level to the brain.

> [T]here is a *nisus* for complexity, an *entelechia* that emerges from the very nature, structure, and form of potentiality *itself,* given varying degrees of the organization of "matter". From this potentiality and the actualization of the potentialities of various organisms, *sensibilité* initiates its journey of self-actualization and emergent form. Diderot's holism, in turn, is one of the most conspicuous features of *D'Alembert's Dream.* An organism achieves its unity and sense of direction from the contextual wholeness of which it is part, a wholeness that imparts directiveness to the organism and reciprocally receives directiveness from it.[47]

A second presupposition is the alternative pathway to the epistemological focus of Kantianism opened up by Hegel, within the phenomenological and dialectical approach of the *Phenomenology of Spirit.* In Hegel's words, the *Phenomenology* "has only phenomenal knowledge for its object, free and self-moving in its own peculiar shape; . . . it can be regarded as the path of the natural consciousness which presses forward to true knowledge'.[48] Bookchin quotes Engels's view that the *Phenomenology* may be seen as 'a parallel of the embryology and the paleontology of the mind, a development of individual consciousness through its different stages, set in the form of an abbreviated reproduction of the stages through which the consciousness of man has passed in the course of history'.[4]

Scientific Support

The concept of *sensibilité* in matter and Hegel's phenomenological strategy suggest the metaphor that nature itself "writes" natural philosophy and ethics—rather than 'logicians, positivists, neo-Kantians, and heirs of Galilean scientism'.[50] Bookchin cites support for this speculative proposition developments in a number of scientific fields current in the latter part of the twentieth Century when he was writing. These include revolutionary advances in astrophysics that enable us to envision the entire universe as the cradle of life. The presence of complex organic molecules in the vast reaches of space is replacing the image of space as a void with the understanding of space as a restlessly active chemogenic ground. All elements form from hydrogen and helium, combine into small molecules and then self-form into macromolecules; the organisation of these macromolecules into the constituents of life and mind challenges Bertrand Russell's image of humanity as an accidental spark in a meaningless void. Recent theories about the formation of DNA modelled on the activity of crystalline replication

suggest how genetic guidance and evolution itself might have emerged to form an interface between the inorganic and the organic.

These developments suggest strongly that we can no longer accept the characterisation of nature as "inert" matter that fortuitously aggregates into life. The universe bears witness to a developing—not merely moving—substance with an unceasing capacity for self-organising into increasingly complex forms. Form plays a central role in this development, with function as an indispensable correlate. The orderly universe scientists assume makes the logic of mathematics meaningful and presupposes the correlation of form and function.

Additionally, Bookchin cites theoretical advances in biology, wherein the metabolism of life establishes another elaboration of *sensibilité*—symbiosis beyond the chemogenic crucible we call the universe. He claims that 'recent data' support the applicability of Peter Kropotkin's mutualistic naturalism not only to relationships among species but among complex cellular forms. Bookchin quotes biologist William Trager's remark about the 'survival of the fittest': 'few people realise that mutual cooperation between different kinds of organisms—symbiosis—is just as important, and that the "fittest" may be the one that most helps another to survive'.[51]

The work of Lynn Margulis further suggests that the cellular structure of all multicellular organisms is testimony to a symbiotic arrangement that renders complex life-forms possible. Her study of the eukaryotic cell making up organisms highlights the functional symbiotic arrangement of the less complex and more primal prokaryotes, or anaerobic single-celled organisms, thereby suggesting three ideas: eukaryotic flagella derived from anaerobic spirochetes; mitochondria derived from prokaryotic bacteria that were capable of respiration as well as fermentation; and plant chloroplasts derived from blue-green algae (cyanobacteria).[52] Bookchin quotes Manfred Eigen, who postulated that evolution 'appears to be an inevitable event, given the presence of certain matter with specified autocatalytic

properties and under the maintenance of the finite (free) energy flow [solar energy] necessary to compensate for the steady production of energy'.[53] This observation adds to the argument that matter is active substance, that life and all its attributes are latent in matter, and that biological evolution is deeply rooted in symbiosis or mutualism. This active substance, evolved into life, appears to create much of its own environment actively, rather than passively adapting to it, as evidenced by the role of life-forms in maintaining the concentration of oxygen in the Earth's atmosphere and the salinity of the oceans.

Bookchin cites the "Effect Hypothesis" of evolution as advanced by Elizabeth Vrba, which looks to internal parameters that affect rates of speciation and extinction, and challenges the Modern Synthesis neo-Darwinian model of evolution.[54] The Effect Hypothesis suggests that evolution features an immanent striving, not merely random mutational changes filtered by external selective factors. These and other revisions to understandings of evolution raise the possibility of a directiveness to genetic change itself, not merely a fortuitous randomness, and an environment largely created by life itself, not by forces exclusively external to it.

These developments across the disciplinary boundaries of various sciences suggest an ecological view that ontologically grades natural history into social history without sacrificing the unity of either. Bookchin identifies the fallacy of classical Greek cosmology not in its ethical orientation but in its dualism:

> [A]ncient cosmology erred most when it tried to join the self-organizing fecund nature it had inherited from the Ionians with a vitalizing force alien to the natural world itself. The self-organizing properties of nature were replaced with Parmenides' Dike—like Bergson's *elan vital,* a latently dualistic cosmology that could not trust nature to develop on its own

> spontaneous grounds, any more than ruling social and political strata trust the body politic to manage its own affairs."[55]

Classical nature philosophy thus erred not in the project of eliciting an ethics from nature, but in the 'spirit of domination that poisoned it'.[56]

In modern times, bolstered by developments in the contemporary science of his day, Bookchin argues that we may be able to permit nature, rather than Dike, God, or Spirit to reveal itself as the ground for an ethics on its own terms. Mutualism can be seen to affirm community as a "desideratum" in both nature and society. The claims of freedom can be validated by what Hans Jonas called the "inwardness" of lifeforms: Bookchin writes: 'The effort, venture, indeed self-recognition that every living being exercises in the course of "its precarious metabolic continuity" to preserve itself reveals—even in the most rudimentary of organisms—a sense of identity and selective activity that Jonas appropriately called evidence of a "germinal freedom'".[57] Bookchin admits that some forms of systems theory may explain the disequilibria that change systems, but we need to look to inherent attributes of substance such as the *sensibilité* of matter to account for the development of nature towards complexity, specialization, and consciousness. He comments on the way in which this view of nature runs counter the contemporary philosophical biases, which tend to either ignore the fact of directiveness or endow it with human traits such as *purposiveness,* rather than seeing it as simply a tendency that inheres in the organisation of substance as potentiality.

Bookchin's approach to nature philosophy asserts that the validity of the presuppositions advanced must be tested against the real dialectic of natural development, rather than against data and statistical probabilities adduced by empirical observation. Here, Bookchin acknowledges agreement with "contextualists" like Whitehead who claim that facts do not exist on their own but are always

relational or *interactive,* using Diderot's germinal word.[58] In addition, he acknowledges that his approach may be as self-enclosed as the Kantian approach; however, he affirms that he has not faulted neo-Kantian or even positivistic theories for their internal unity or impregnability to immanent criticism. Rather, he faulted them for their claim to universality, because their presuppositions lack an adequate framework for understanding natural history and its ethical implications. For Bookchin, the study of nature exhibits a self-evolving *nisus* that is implicitly ethical. Mutualism, self-organisation, freedom, and subjectivity are not solely human concerns. They require no God or Hegelian spirit to vitalise them. They can be seen to cohere according to social ecology's principles of unity-in diversity, spontaneity, and nonhierarchical relationships, which are constitutive of evolution's potentialities. Bookchin concludes, "if social ecology can provide a coherent focus on the unity of mutualism, freedom and subjectivity as aspects of a cooperative society that is free of domination and guided by reflection and reason, it will have removed the difficulties that have plagued naturalistic ethics for so long."[59]

Assessing Bookchin's social ecology

In the following chapters, I critique the philosophy of social ecology, offering recent scientific support for some of Bookchin's characterisations of the natural world, though I question his 'directionality thesis'—the notion of an overarching telos or tendency toward increasing biological complexity, consciousness, subjectivity, choice, and freedom. Further, I argue that in the context of philosophy and critical thought today, social ecology needs an epistemology, a well-argued basis to trust its assertions about nature as something real and not simply something we wish to believe because it supports our political goals. Finally, I examine the ways in which the revolutionary project of social ecology might respond theoretically and practically to a lacuna in terms of the issues of racism and

colonialism.[60] First, however, I look at the potential contributions that a so-called "New Materialism"—and especially the work of Catherine Malabou—offers to Bookchin's social ecology.

Notes to Chapter 2

1. Janet Biehl, *Ecology or Catastrophe: The Life of Murray Bookchin* (Oxford: UK, Oxford University Press, 2015).

2. Debbie Bookchin, 'How My Father's Ideas Helped the Kurds Create a New Democracy', The New York Review of Books, published 15 June, 2018, accessed 23 October, 2018, www.nybooks.com,

3. Marcel Van Der Linden, 'The Prehistory of Post-Scarcity Anarchism', *Anarchist Studies,* 9, no. 2, (2001).

4. Aaron D. Hyams, *Fifty Years on the Fringe: Murray Bookchin and the American Revolutionary Tradition 1921 – 1971.* Master's thesis, University of Montana, Missoula, MT, submitted 2011, accessed 4 November, 2019, www.semanticscholar.org.

5. Quoted in Debbie Bookchin, www.nybooks.com.

6. Ibid.

7. Based on personal account told to author.

8. Lewis Herber (pseudonym for Murray Bookchin), 'The Problem of Chemicals in Food', *Contemporary Issues,* 3, no. 12, (June-August 1952): 210.

9. Murray Bookchin, 'Ecology and Revolutionary Thought', in *Post-Scarcity Anarchism,* (Montreal: Black Rose Books, 1986), 79-104.

10. Murray Bookchin, 'Listen! Marxist!' In Ibid, 192-242.

11. The account of Bookchin's relationship with the IKD and Josef Weber is drawn from Marcel Van Der Linden, 'The Prehistory of Post-Scarcity Anarchism'.

12. See Aaron Hyams, *Fifty Years on the Fringe.*

13. Ibid., 72.

14. Murray Bookchin, *The Limits of the City.* (New York: Harper and Row, 1974); 2nd ed. (Montreal: Canada, Black Rose Books, 1986).

15. Murray Bookchin, *The Spanish Anarchists: The Heroic Years 1868 – 1936.* (New York: Free Life Editions, 1977); 2nd ed. (San Francisco: AK Press, 2001).

16. Murray Bookchin, *Toward an Ecological Society.* (Montreal: Black Rose Books, 1980).

17. Murray Bookchin, *The Ecology of Freedom.* (Palo Alto: Cheshire Books, 1982); 2nd ed. (San Francisco: AK Press, 2001).

18. Murray Bookchin, *The Rise of Urbanization and the Decline of Citizenship* (San Francisco: Sierra Club Books, 1987); revised ed., *From Urbanization to Cities: Towards a New Politics of Citizenship* (London: Cassell, 1995).

19. Murray Bookchin, *The Philosophy of Social Ecology: Essays on Dialectical Naturalism.* (Montreal: Black Rose Books, 1990); 2nd ed. (1996).

20. Murray Bookchin, *The Third Revolution: Popular Movements in the Revolutionary Era* (New York: Cassell, Vol. 1, 1996); Vol. 2. (1998); London: Continuum, Vol. 3, 2004, Vol. 4, 2005).

21. Murray Bookchin, *Social Anarchism or Lifestyle Anarchism: An Unbridgeable Chasm* (San Francisco: AK Press, 1995).

22. This quote and the following account of Bookchin's connection with Abdullah Öcalan is taken from Debbie Bookchin. "How My Father's Ideas Helped the Kurds Create a New Democracy".

23. Öcalan, quoted in ibid.

24. Lewis Herber (pseudonym for Murray Bookchin), *Our Synthetic Environment* (New York: Alfred A Knopf, 1962), 26-7.

25. Lewis Herber (Murray Bookchin), *Ecology and Revolutionary Thought* (London: Anarchy, 1965), 6.

26. Murray Bookchin, 'Spontaneity and Organization', in *Toward an Ecological Society,* 271.

27. Dorothy Lee, from *Freedom and Culture* (Englewood Cliffs, NJ: Prentice-Hall, 1959), quoted in Murray Bookchin, *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy* (Palo Alto: Cheshire Books, 1982), 44.

28. Murray Bookchin, 'What is Social Ecology', in *The Murray Bookchin Reader,* ed., Janet Biehl (Montreal: Black Rose Books, 1999), 39.

29. Murray Bookchin, 'Freedom and Necessity in Nature', in *The Philosophy of Social Ecology: Essays on Dialectical Naturalism* (Montreal: Black Rose Books, 1996), 71-96.

30. Murray Bookchin, *The Ecology of Freedom,* 315-16. Quoted in *The Murray Bookchin Reader,* 39.

31. Murray Bookchin, 'Social Ecology versus Deep Ecology: A Challenge for the Ecology Movement', Green Perspectives: Newsletter of the Green Program Project, nos. 4/5 (Summer 1987): 9.

32. Ibid., 13.

33. Ibid., 9.

34. Murray Bookchin, 'Thinking Ecologically: A Dialectical Approach', *Our Generation, n*o. 18, (Spring/Summer 1987): 21, quoted in Andy Price, *Recovering Bookchin: Social Ecology and the Crises of Our Time* (Oslo: Norway, New Compass Press, 2012), 80.

35. Murray Bookchin, *The Modern Crisis* (Philadelphia PA: New Society Publishers, 1986), 56, quoted in Ibid., 81.

36. Murray Bookchin, 'Rethinking Nature, Society, and Ethics', *The Modern Crisis,* quoted in Ibid., 11.

37. Murray Bookchin, "Thinking Ecologically", 29.

38. Ibid., 29.

39. Ibid., 31.

40. Ibid., 35.

41. Ibid., 11.

42. Ibid., 36.

43. Murray Bookchin, 'Toward a Philosophy of Nature', in *The Philosophy of Social Ecology: Essays on Dialectical Naturalism* (Montreal: Black Rose Books, 1996), 37-69.

44. Ibid., 39.

45. Ibid., 41.

46. Ibid., 56.

47. Ibid., 57.

48. Ibid., 58.

49. Ibid., 58.

50. Ibid., 59.

51. Ibid., 60.

52. Ibid., 60-61.

53. Ibid., 60-61.

54. Ibid., 62.

55. Ibid., 63.

56. Ibid., 64.

57. Ibid., 65.

58. Ibid., 65.

59. Ibid., 65-66.

60. Any account of US-based revolutionary efforts would need to include at least three major sources:
    1. The Highlander Folk School in Tennessee co-founded by Myles Horton, a revolutionary practitioner of the social gospel, that had a major influence on Civil Rights Movement leaders, including Martin Luther King, Rosa Parks, James Bevel, and Ralph Abernathy. From his work with poor mountain communities in Tennessee, Horton came to appreciate the way in which a free discussion from the diverse perspectives of blacks and whites of social problems without indoctrination could lead to radical and even revolutionary ideas.

    2. The Boggs Center in Detroit, founded by Grace Lee and James Boggs. Originally a member of the Johnson-Forest (Trotskyist) tendency led by C. L. R. James, Grace Lee left the Trotskyist left to focus on the study of global and local grass-roots freedom struggles. Together with her husband, the political activist James Boggs, Grace Lee Boggs became well-known in Detroit for community activism guided by a revolutionary intention.

    3. The Institute for Social Ecology ISE, founded by Murray Bookchin and Dan Chodorkoff in 1974 in Plainfield, Vermont, and a primary subject of this study. In 1992 some ISE students participated in the *Detroit Summer* program organised by Grace Lee and James Boggs. There have been other contacts and collaborations among those working to carry on the vision and projects of these inspirational sources, but not enough in my view.

Chapter 3: Social Ecology and Deconstruction

As I observed in my introduction, radical and revolutionary political thought has existed in tension at best and often in opposition to two elements: Continental philosophy in general, identified as it has been with the work of Heidegger; and deconstruction as put forward by Derrida and more recently reworked by Malabou. The purpose of this seeming digression is to encourage a greater openness to deconstructive approaches among those who may be more at home in other forms of social inquiry, based on what may be considered more straightforward political concepts. I now recount the infamous Sokal hoax and the polemic associated with it.

In pivoting to deconstruction at this juncture, I imagine a dismissive groan from those who remain on one side of a polemic that came to a head with the Sokal hoax. To revisit this oft-cited incident briefly, *The New York Times* reported on the front page of its 18 May, 1996 edition the story of a hoax played on the peer-reviewed academic journal *Social Text,* the chief outlet of the "cultural studies" movement greatly influenced by poststructuralist discourse. The physicist Alan Sokal had just revealed in *Lingua Franca* that he had submitted a satire entitled 'Transgressing the Boundaries: Toward a Transformative Hermeneutic of Quantum Gravity', aimed at making what postmodern sociologists for science say about gravity look ridiculous, and challenging what Sokal took to be the relativism of cultural studies regarding the 'hard science' of physics.[1]

The Sokal hoax prompted an article entitled "Postmodernism and the Left" by Barbara Epstein,[2] whom Sokal had contacted to help prepare a piece that disclosed his hoax, which was

subsequently overtaken by events that led to the discovery of the hoax by free-lance journalist David Glenn, and the statement by Sokal published by *Lingua Franca.*

In her article, Epstein provides a useful overview of some of the controversies surrounding the rise of cultural studies in the late twentieth-century academy. She presents an abbreviated historical and sociological overview of issues related to postmodernism, critiquing the "subculture of postmodernism" within the university, and its claim to be the intellectual voice of the left. She traces postmodernist intellectual movements to the debates within intellectual circles in the aftermath of the betrayal of the student movement by the French Communist Party in May of 1968. Epstein notes that postmodernism rejected not only the humanism of Sartre but also the structuralism dominant at the time, though retaining its focus on language. This led to the view that all reality is shaped by language, which then becomes primary, and everything else, including overt structures of political power, are derived or constructed from it. Combined with the work of Foucault on how power is dispersed through society, this view about language led to a focus on cultural critique and the micropolitics of daily life, away from the macrostructures of the economy and the state. Epstein asserts that the demands of the academy took precedence over the relation with (the attenuated) social movements by the 1990s, with claims to radicalism serving primarily the purpose of career advancement.

Epstein rejects the "strong" version of postmodernism, which she states as the view that because all reality is mediated by language, there is no truth, only truth claims, and no privileged or unassailable position from which to measure these claims. She accepts the obvious premise that our

perception of reality is mediated and argues against the claim that all truth claims have equal status. Epstein acknowledges that we will never possess ultimate truth, but asserts that it is possible to expand our understanding, and that it is worth the effort to gain more knowledge.

Epstein's comments would seem non-controversial, even from a constructionist position: as we have seen, the "hyper-constructionist" questioning of any objective reality outside of that constructed by discourse is a decidedly minority view. However, Epstein's comments have been part of a polemic—one I argue has resulted from a process of mutual caricaturisation similar to that between Bookchin and certain of his deep ecology critics, as well as to a tendency still prevalent to subsume a disparate and often contentious discourse within the general label of postmodernism, with a presumed set of common denominators among quite divergent thinkers. It is important to emphasise that Derrida never argues for the relativity of truth claims. John D. Caputo has responded to the caricature of Derrida and deconstruction in particular. He writes,

> The last thing Derrida is interested in doing is undermining the natural sciences or scientific knowledge generally. A "deconstruction" of natural science, were it undertaken seriously and with a sufficient sense of gravity, [pun definitely intended] would be good news. Its effect would be to keep the laws of science in a self-revising, self-questioning mode of openness to the "other", which here would mean the scientific "anomaly", the thing that defies or transgresses the law (*nomos).* A deconstructive approach to science would keep the scientific community open to the upstarts, the new ideas, the audacious young graduate students who come up with unexpected hypotheses that at first look a little funny and then a little brilliant.[3]

Nurtured within the diverse, surprisingly efficacious, and greatly underappreciated activist community inspired by social ecology, it might seem 'natural' for me to take the anti-postmodernist side of the polemic, a polemic that has resurfaced and even intensified with deconstruction and 'French theory' now being blamed for a Trumpian era of 'alternative facts'. Indeed something like this antipathy to "postmodernism" was the case for me for a number of years. However, as I have read more Derrida for this project, I have come to appreciate the ethical thrust of his work. The general itinerary of his approach proceeds from a scholarly, intellectually rigorous 'first reading'; his intent in the subsequent 'productive' or deconstructive reading is not to destroy theoretical structures, nor to presume to 'correct' them in the manner of critique, but to show the complicity of certain structures of argument with the forces they oppose and, indirectly perhaps, to provide the conditions of possibility for others to make those theoretical structures more sound and resilient. The first response for Derrida was not to the theoretical question, but (influenced by Levinas) to the ethical call of the other, to the person, thing, or idea that might all too easily seem already objectified and known, such as the established categories of gender. I would agree with Clayton Crockett when he writes, '[D]uring the late 1980s and early 1990s, this cultural-intellectual-technological scheme of writing evolves into a motor scheme that Malabou describes as one of *plasticity*. . . . In effect, concerns of ethics, politics, and religion emerge into the foreground as writing becomes more and more backgrounded'.[4]

Social ecology of course is aimed at a concrete project for revolutionary social and political transformation. Social ecology theory is meant to provide a sound basis for coherent thinking, which enables activists to pursue this primary goal and the many related goals entailed along the way. The present study is primarily an inquiry into the philosophy of social ecology, though I briefly address

some of what may be termed movement-related issues in the present chapter, and in the final two chapters.

Bookchin objects to what he saw as the relativist and even nihilistic implications of "postmodernism", which he strenuously rejects along with "mystical ecologies" as being terribly inadequate to meeting the challenges of thinking through and incrementally achieving a revolutionary project for our time. If we apply the political test that this rejection implies to the deconstruction of Derrida and Malabou, we must ask how deconstruction contributed or how might it contribute to activism towards concrete social and political reconstruction? I have previously discussed one instance of the way Derridean deconstruction may be seen to have indirectly informed the approach of activists confronting timber companies in their plans to clearcut portions of the ancient forests of British Colombia.

A further investigation of this topic is provided by Jessica Simpson and James K. Rowe in their article 'Why Poststructuralism is a Live Wire for the Left', which presents what might be considered an update on the 'theory wars' discussed by Epstein.[5] Similar to what I have been maintaining, Simpson and Rowe argue that left movements, including those directed at gender inequities and male violence against women, could benefit from more contact with poststructuralist insights. They cite the "growing irrelevance" of theory for emerging anti-globalist movements of the new millennium. Although they acknowledge that anti-globalisation activists have probably been exposed to poststructuralist writing, they list more probable influences within a broad non-academic anarchist orientation as 'Hakim Bey, Bob Black, Noam Chomsky, Naomi Klein, Subcomandante Marcos,

Arundhati Roy, Vandana Shiva, Starhawk, and John Zerzan'. The authors focus on areas in which poststructuralist insights can be helpful for left activists—for example, being careful not to replicate exclusions in activist organising through tactics such as learning how to avoid this exclusion by means of teach-ins and workshops; going beyond moralism and self-righteousness in strategic organising, while holding to ethical principles that go beyond the merely strategic or cynical and self-serving; and avoiding the tendency to essentialise the "enemy" as having more structural coherence than actually possessed, thereby ignoring the cracks and contradictions that activists can turn to their advantage. I agree with these sound insights, but point out the need for utilising these within an engagement toward a macropolitics of change, something which social ecology can uniquely provide. In addition, I challenge the notion of the irrelevance of theory: theory creates a milieu, I argue, in which ideas actualise in unforeseen and creative ways, as we have seen with the example of the struggle against clear-cutting in British Colombia. Later in this study, I suggest the process of *creolization* as a way to understand this interactive space of creative potential among various actors engaged in a shared project towards a more inclusive and radical democracy.

I now turn to a short explication of deconstruction as developed by Derrida and reworked by Malabou. I then suggest how these insights might enter into conversation with Bookchin's social ecology, noting as part of the analysis the way in which Bookchin's philosophy of nature builds on the work of a somewhat overlooked thinker, Hans Jonas. Finally, I consider how the insights offered by deconstruction might serve social ecology and other movement activists working for an anti- or post-capitalist future.

Jacques Derrida and the Erasure of a Natural Origin

Linking the critique of presence and the philosophical focus on language, and most pointedly encompassing a subversion of the notion of an efficacious subject, is the work of Jacques Derrida. Derrida's thinking regarding that which deconstructs the closure of philosophical systems from within, variously termed *différance,* the *trace,* or the *supplement,* continues to influence strongly the idea of a social nature, as we have seen.

Derrida's philosophy deconstructs the assumption of a self-identical presence at the 'root' of things, and also the assumption of a simple origin. Derrida claims that whatever origin we find or whatever sequential ordering we posit is effectively undone by the very means by which it is articulated. A past origin cannot be thought without its derivation, and further, it cannot appear without being occulted or eclipsed by the means by which it signifies. The double movement of occultation or erasure and retroactive constitution is known as the 'trace'. The trace through which we refer to the past is not continuous with that past, nor is it a kind of being. It is understood through a related key concept, that of 'différance', spelled with an 'a', which introduces a gap irreducible to any prior synthesis, unity, or continuity.

Derrida developed his deconstruction of self-identical presence through and against Hegel, Husserl, and Heidegger. In some ways, Derrida follows a path similar to Hegel's critique of external reflection, the critique of the subject as merely reading the truth of an object as reflected back to itself, rather than as the awareness that such determinations occur in a context always already given to the subject through the synthetic activity of consciousness. The veiled essence of experience as the way in which subject and object are defined in relation to each other is the expression of a determining power that Hegel calls 'determining reflection'. Ultimately, according

to Hegel, we must move beyond the stance of detached, disinterested observation to the concrete project of recognising that (and in what way) our apparent other is a reflection of our true determining identity. Absolute knowing realises that it is only by grasping the determinate form of its relation to objects that it will know itself. For Heidegger, this self-already-in situation, which does not recognise that it is standing outside of itself, is dasein, characterised by a 'throwness' into 'everydayness', an everydayness that conceals the gift of being. Derrida critiques the 'master signifier of being' in Heidegger, and identifies multiple gaps rather than the one gap that can be bridged in the Hegelian *aufehebung.*

An early deconstructive effort was Derrida's 1967 *Voice and Phenomenon*, a study of Husserl's phenomenological investigation into the nature of scientific objects.[6] Here, Derrida argues that, when Husserl describes lived-experience (*Erlebnis*), even absolute subjectivity, he is speaking of an interior monologue, auto-affection as hearing-oneself-speak. In the very moment when silently I speak to myself, it must be the case that there is a miniscule hiatus differentiating me into the speaker and into the hearer. That is, a hiatus exists that differentiates me from myself, a hiatus or gap without which I would not be a hearer *as well as* a speaker. This hiatus also defines the trace, a minimal repeatability. Thus, this hiatus, this fold of repetition, is found in the very moment of hearing-myself-speak.

In his seminal text *Of Grammatology,* Derrida presents the notion of 'general' or *arche-writing* that attempts to express the essential nature of language, and indeed of all signification or inscription, as that which exceeds and in some sense antedates speech and the narrow history of writing.[7] This

notion emerges through a careful study of Saussure, Lévi-Strauss, and Rousseau, building upon Derrida's 'acknowledged precursors': Nietzsche, Freud, and Heidegger.

Saussure and Rousseau in varying ways exemplify the nostalgia for lost presence, for unity and mastery, identified in the valorisation of the *parousia* of the voice, the self-presence of the solitary and silent thought of the self—the unique type of auto-affection examined by Husserl—in contrast to the artifice and 'unnaturalness' of writing. However, Saussure was obliged to acknowledge that there is no necessity in the connection of a particular thought or thing and a particular sound—the phonic signifier is as arbitrary and conventional as the graphic. This insight enabled Derrida to suggest that what opens the possibility of thought is not merely the thought of being (the 'transcendental signified' interrogated by Heidegger) but the structure of a never-annulled difference from a completely other.

Derrida's strategy is that of a discourse which borrows from a heritage the necessary resources for the de-construction of that heritage. This strategy has some similarity to that of *bricolage,* which Lévi-Strauss alludes to in *The Savage Mind,* whereby anthropologists must repurpose concepts possibly meant for other ends, as tools possessing relative efficacy in the project of empirical work, because it is impossible for them to master the whole field. Derrida, however, argues that it is *theoretically*—not only empirically—impossible to make the end of knowledge coincide with its means: the sign and meaning can never become self-identical.

Derrida shares Nietzsche's suspicion of the values of Truth, Meaning and Being to a point, though he does not summarily dismiss questions of truth. Moreover, Derrida shares Nietzsche's commitment to the understanding of philosophical discourse as formal, rhetorical, figurative discourse to be deciphered, especially metaphor as the originary process of what the intellect presents as truth. For Nietzsche, the will to power energises the drive for knowledge as a process of appropriating new material into old schemas, the making equal of what is new. The only origin, being a direct sign of

nothing, leads to no primary signified. Instead, there is a thematic of active interpretation. Acutely aware of the way in which philosophers are bound by their perspectives, Nietzsche can at least attempt to reverse perspectives often, suggesting the Derridean practise of deconstructing—and reversing the hierarchies of—supposed unitary opposites.

Similarly, Nietzsche analyses the 'subject' as a unified concept that results from interpretation, and that occurs as a linguistic figurative habit: the thought that when there is thought, there must be something that thinks. Nietzsche sometimes puts the will to power not under the control of a knowing subject, but underground, in the unconscious. For Derrida, then, both Nietzsche and Freud 'sometimes in very similar fashion put consciousness into question in its assured certainty of itself'.[8] Nietzsche acknowledges that there is no escape from thinking within a determined position or perspective, and proposes an 'active forgetting' of the relativity of all perspectives. This forgetting is distinct from the 'forgetting of the question of being' that forms the problematic for Heidegger; Derrida believes Nietzsche's Overman 'will not be a guard of the house and the truth of Being'.[9] Ultimately, Derrida reads Nietzsche not only through but against Heidegger, notably against Heidegger's reliance on the 'transcendental signified' of Being. This putting the knowing subject into question in Derrida's invocation of Nietzsche and Freud is evident, of course, in Hegel, but the effect is to challenge the belief in an efficacious subject significantly more than in Hegel's philosophy.

Derrida in *Of Grammatology* engages in an extended close reading of Rousseau's *Essay on the Origin of Languages.* The thought of such an origin places us in that liminal space between the 'state of nature' and human society and culture. The first words of the *Essay* are: 'Speech distinguishes man from the animals.' Speech is therefore not natural. However, Rousseau distinguishes between language and speech: speech is universally human, but languages are diverse. Speech owes its form to natural causes alone, but to understand what makes one people speak a particular language and not another,

one must go back to the local and that which precedes even customs. Derrida thus writes, 'the natural causality of language splits itself in two.'[10]

Imagination and pity, key terms for Rousseau, are natural yet need awakening. Humans encounter others, recognise them, and wish to communicate. Rousseau envisioned the first language as gestural. Writing then emerges as 'the dangerous *supplement*, which on the one hand may add to and improve and, on the other hand, may come to *replace*, resulting in a loss of energy, a loss of the sense of immediacy and presence and vital connection between word and thought or thing. Yet the concept of nature within this account, as Derrida writes, becomes enigmatic; there can be no simple origin:

> The natural is first valorized and then disqualified: the original is also the inferior retained within the superior. The language of gesture and the language of voice, sight, and hearing, are "equally natural". Nevertheless, one is more natural than the other, and because of this it is first and better. Natural immediacy is at once origin and end, but in the double sense of each of these words; birth and death, unfinished sketch and finished perfection. From then on, all value is determined according to its proximity to an absolute nature. But as this concept is that of a polarized structure, proximity is a distancing. All the contradictions of the discourse are *regulated*, rendered necessary yet resolved, by this structure of the concept of nature.[11]

Derrida deconstructed traditional metaphysics by means of the supplement and the trace. Trace for Derrida has no relation to form—form names only that which is captive to the categories of being. In *Margins of Philosophy* he writes,

> As soon as we utilise the concept of form—even if to criticise *an other* concept of form—we inevitably have recourse to the self-evidence of a kernel of meaning. And the medium of this self-evidence can be nothing other than the language of metaphysics.[12]

As we continue our philosophical journey, the question of how we may know nature evolves, under the pressure of the prospect of climate and related forms of ecological catastrophe, into questioning the forms grounded (perhaps) in nature that may help us think the future, in a way beyond "futurism" or dystopic despair, that gives a credible future for us and our descendants. The critical and sceptical approach of deconstruction offers few resources in this regard. Nature remains an intertextual phenomenon, all too easily assimilated to a "nature-sceptical" social constructionist that ironically limits the mobility and transformability of concepts of nature.

Though it emphasises the contingent and the event and seeks to avoid architectonic structure, Derridean deconstruction does imply a structure of sorts, the 'endless play of signifiers' and the aporietic structure of substitutions and supplements. However, the Derridean and Levinasean ethical move towards an atemporal and transcendent 'messianism without messianicity' ultimately limits the mobility and transformability of such an approach to deconstruction, both in temporal and morphological terms. Even Derrida's suggestion that DNA constitutes an instance of writing awaits the move from the genetic to the epigenetic that we discover in Malabou's productive and plastic reading of Kant, a reading that returns embodiment to the trace and life to deconstruction, in multiple senses of the phrase.

Catherine Malabou and the Critique of the Erasure of Form

For Derrida, trace 'exceeds the truth of Being', and it thus exceeds the register of formation, or trans-formation, of change and metamorphosis. Catherine Malabou, at one time a student but ultimately not a follower of Derrida, takes issue with these assertions in her *Plasticity at the Dusk of Writing.*[13] She asks, "isn't a certain play in form always the resource lying behind "supplementarity"?' Malabou develops a philosophical concept of *plasticity,* first encountered in her reading of Hegel's

Phenomenology of Spirit, in which Hegel describes the subject's relation to its 'accidents' as plastic. Malabou argues that writing would have to be plastic to open onto its wider meaning in Derrida, masked by its derived or common meaning.

Plasticity as a philosophical concept asks us to understand form in a more subtle, supple, and expanded manner, beyond its traditional 'sculptural' connotations as the convening of presence, as "presenting" in a given form. Plasticity refers not only to the capacity to give, receive, and "explode" form (as in *plastic* explosives), but also to regulate the transformation of traditional historical concepts such as the Hegelian dialectic in its relation to, and ultimately exchange with, the "ultrahistorical" destruction in Heidegger, and deconstruction in Derrida.

Rather than thematically exploring a confrontation of forms of negativity, as between Hegelian dialectic and Heideggerian destruction, with endless mutual accusations and denegrations, Malabou instead looks for that which authorises the shift from metaphysics to its other in Heidegger. Change, economy, and metabolism in Heidegger occur along both migratory and transformational axes. Confrontations with alterity within the folds of being can lead to conceptual transformations, as well as new trajectories or pathways of thought.

However, for there to be authentic transformation, altered thought must show itself in a new scheme—it must have visibility (*Verwandling*). Malabou thus explores the image, scheme, and mobility appearing as the philosophical 'fantastic'. In Heidegger's thought, this corresponds to the activated schema of the 'end of the metaphysics of being'. For Hegel, it may be seen as the reflexive relation of history to itself. Heidegger accuses Hegelian dialectics of constituting an implacable motor of change that ultimately does not change anything, because it consists of a 'farewell to time on the road to spirit, which is eternal'. The most serious objection to the Hegelian dialectic for Heidegger is its apparent metaphysical understanding of being as *immutability.* According to Heidegger's reading of

Hegel, the change of the other into the other of the other remains the work of relating the self to the undetermined immediacy of the self-same; thus being in Hegel is not originally metabolic. Though Malabou contests Heidegger's reading of temporality in Hegel's philosophy in her *The Future of Hegel,* she does not sustain a direct confrontation between the two thinkers.[14]

Instead, through her examination of the economy of change in Heidegger's thought, Malabou recognises and demonstrates two essential points: first, the possibility of conferring an *ontological* meaning on plasticity permits its exportation outside of the dialectical framework. Thus plasticity may be seen as the non-dialectical and ontological origin of the dialectic, which Heidegger claims Hegel fails to make explicit. Second, this displacement of plasticity, essential in the genesis of its constitution as a 'hermeneutic motor-scheme' of thought, allows Malabou to develop Hegel's implicit response, that there exists a 'schizology' in Heidegger, in the sense that he fails to recognise the ontological split representation as such, even though he is the one to bring it to light. This schizological tendency can be seen in his worship of the 'simple'. In 'Hebel—Friend of the House', Heidegger writes that authentic metamorphosis 'is an intensification which goes toward simplicity'.[15] Malabou writes, 'Yet what can the simple mean in a thought of difference if not something like a return, a regression toward the plenitude of presence. Hegel's answer . . . could therefore be the following: the recognition of the schizological tendency of ontology enables the dialectizing of the simple, breaking its sculptural effect'.[16] The philosophical concept of plasticity as a hermeneutic motor-scheme allows deconstructed systems within the 'metaphysical tradition', such as that of Hegel, to 'negotiate' with their deconstruction—what is plastic has the ability to dissolve as well as assume form, to relaunch itself beyond destruction and deconstruction.

In contesting the transcendence of the trace in Derrida (and in Emmanuel Levinas), Malabou challenges the dematerialisation of contemporary philosophy, its fascination with the opening to the

formless Other in Messianic thinking, and its mourning of an endless end. She names not only the ontological exchangeability of plasticity but also the material dimension as well, including monetary exchange, and the exchange of values. The image of the path in Heidegger and the other as a line that scratches, tears, slices, and striates in Derrida risks "the reduction of the metabolic to the phoronomic [echoing Kant], a reduction that Heidegger ultimately confuses with metaphysics'.[17]

Malabou refuses to accept a possible beyond of form, any more than a transcendence or absence of negativity. A philosophical impoverishment of movement to only the rectilinear trajectory cuts philosophy off from an understanding of alteration, formation or deformation, genesis, and decline—from *a relation to life.* Instead, she proposes a 'plastic' reading of a text that 'seeks to reveal the form left in the text through the withdrawing of presence, that is, through its own deconstruction'. She quotes Derrida's announcement of writing and the "program" in *Of Grammatology:*

> [W]e say "writing'" for all that gives rise to an inscription in general, whether it is literal or not and even if what it distributes in space is alien to the order of the voice: cinematography, choreography, of course, but also pictorial, musical, sculptural "writing". One might also speak of athletic writing, and even with greater certainty of military or political writing in view of the techniques that govern those domains today. . . . It is also in this sense that the contemporary biologist speaks of writing and *pro-gram* in relation to the most elementary processes of information within the living cell.[18]

A hermeneutic motor-scheme (the term is drawn partially from Bergson) must not only effectively order the understanding and exegesis of the prevailing thought of an era, but must be solidly constituted in its philosophical conceptuality. Malabou writes that the linguistic-graphic scheme entered a twilight some time ago, and plasticity is establishing itself in its place, as the paradigmatic

figure of organisation in general, not only in research into the 'plasticity' of the brain, but in new forms of social and economic organization, including gender and sexual identities. The political implications of nonhierarchical assemblies of neuronal networks in the brain and the self-organization of cells and synapses 'should not be ignored'. Malabou concludes: 'plasticity is able to momentarily characterize the material organization of thought and being. It is my opinion therefore that we should certainly be engaging deconstruction in a *new materialism'.*[19]

As adumbrated in the introduction to this chapter, assessing the political value of deconstruction is complex and contested, and well beyond the scope of this study. However, I do want to present two incisive critiques of the political implications of Derridean construction, and argue for the way in which the ontological investigations of Malabou suggest resolutions of these issues.

Assessment of Derrida in Relation to This Thesis

In the context of the present inquiry, I evaluate the importance of Derrida and the value of his work in a number of ways. First, Derrida's work problematises concepts of nature, as we see in his productive reading of Rousseau. This problematising has influenced social constructionist approaches to nature, as we have also seen. Though the deconstruction of naturalising concepts has contributed to an intellectual milieu of scepticism in regard to the possibilities of a naturalist philosophy, it is not alien to what I see as a kind of social constructionism embedded in Murray Bookchin's philosophy of nature, evident in his calling out such notions as that of the characterisation of the lion as the 'king of beasts', representing the projection of human social relations of domination.

Second, I believe Derrida demonstrates a pronounced ethical sensibility, especially in his later writings. Partly influenced by the thought of Emmanuel Levinas, Derrida has spoken of his approach

as an attempt to answer the question posed by the other. Derridean deconstruction has indirectly contributed significantly to overcoming oppressive hierarchical binaries, and has been useful for those active in overcoming gender-based oppression. In writings such as *The Other Heading* and *Rogues,* Derrida extends this ethical sensibility to an interrogation of Eurocentric and ethnocentric assumptions, and to political issues that emerge from a deconstruction of concepts of democracy and the sovereignty of political states.

Third, Derrida's decision to deconstruct concepts within the dominant Western tradition rather than challenge this tradition from some point 'outside' is also valuable, in that it 'fissures' this tradition in a more effective way—a way more productive of transformative possibilities, I argue, than a wholesale rejection, however principled. Though Bookchin chose to work within the Western tradition as well, his effort is aimed at an architectonic structure, one relatively immune from immanent criticism. Derrida's approach is more open to the thought of the other and to the other's thought, to the encounter with difference. I further suggest that Derrida's suspicion of closed architectonic philosophical structures potentially opens deconstruction to the possibilities explored in creolization theory as an anti-colonial discourse, discussed in Chapter 7. Derrida's deconstruction has been useful for anti-colonial activism, though it has been criticised for its dematerialised approach. The openness of Derrida's thought towards difference, nourished partially by his early alienation from the French communist party of his day, has encouraged a sensibility that tends to challenge dogmatism in whatever form, and this continues to be valuable within the contentiousness of a radical left that has not yet emancipated itself from factionalism.

However, Derrida's move towards an insistence and a prioritising of an immaterial and atemporal 'messianic' horizon from which to critique and deconstruct the Western metaphysical tradition remains a problematic site in terms of the political resonance of his thought. Though

Derrida's work has undoubtedly contributed to an enhanced appreciation of the self-deconstructing aporias of philosophical thought, and of ethics in relation to radical alterity, I would argue that the turn away from Hegel and dialectics following Heidegger has problematized coherent political thought in Continental philosophy in unfortunate as well as productive ways. The primacy of a the project of deconstructing the Western metaphysical tradition over normative political concepts and distinctions has led, at least in the case of Derrida, to a questionable framing of the political dimensions of philosophic thought, ironically one that I would assert remains trapped in a disembodied quasi-transcendental metaphysical and ultimately apolitical approach to ethical, legal, and social issues. Next, I review an article that challenges Derrida on these issues.

Nancy Fraser, in 'The Force of Law: Metaphysical or Political?', challenges the primacy of a quasi-transcendental approach to law over a critical theoretical approach based on normative *political* concepts.[20] She first notes the way in which quasi-transcendental approaches take precedence over those of critical social theory in certain discourses influenced by the work of Derrida, the latter becoming deprivileged and seen as comparatively superficial. She notes that those who defend the ethical disposition of Derridean deconstruction must confront the problem that normative conclusions cannot be derived from a quasi-transcendental premise. She cites Derrida's account of law and violence as inherent in the deep structure of judgement, wherein the underdetermination of legal judgement at the moment of decision requires that judgement can never be resolved by calculation but must always be a 'leap'. It is in this leap of radical freedom that the 'madness' or 'violence' of legal judgement resides.

Fraser criticises Derrida's account for its jump from the uncontroversial claim that legal judgement cannot be reduced to calculation to the 'hyperbolic' characterisation of such judgement as 'madness', 'mystique', and 'violence', without acknowledging intermediate positions, such as the

Aristotelian conception of *phronesis,* which understands legal judgement neither as an algorithmic procedure, nor as the exercise of an irrational will. She comments that when Derrida stylises judgment as 'force' or 'violence', he ups the rhetorical ante too quickly, risking the loss of important normative political distinctions between the presumably inescapable interplay of freedom and constraint in interpretation with contingent and alterable forms of individual and institutional coercion. Her most serious objection is the way in which Derrida's account of the constitutive violence in law is presented as independent of any specific social or institutional arrangements, and is thus not subject in principle to any possibility of change. Ultimately, she opposes not the validity of this 'metaphysical' view of the force of law but its priority over a political approach, that would seek to identify and overcome the various levels at which masked structural violence distorts the institutional practise of legal judgement. Fraser argues that these priorities are exactly backward.

Assessment of Malabou's Contribution

I argue that Malabou makes important contributions to some of the crucial problematic issues related to deconstruction sketched previously. First, she contributes toward rematerialising contemporary Continental philosophy, thereby at least indirectly overcoming some of the limitations of Derrida's approach. In ways I analyse more closely in Chapter 5, she also performs an ontological investigation into the Kantian Transcendental with important implications for social ecology's project of articulating a naturalism among a 'shallow' environmentalism that would not challenge the 'grow or die' dynamic of capitalism, a 'deep' ecology that would romanticise, reify, and detemporalise concepts of nature, as well as a social constructionist perspective that would deny the possibility of any stable concepts of nature at all beyond the projections of human social interests.

Malabou's challenge to the atemporal Messianic horizon of Derrida's thought is helpful in preserving within a materialist deconstructive practise a coherent ontological basis for the principled normative political concepts emphasised by Fraser above. Her work is potentially valuable in interrogating atemporal legal judgements and political practices that would 'freeze' indigenous identity at the time of European conquest.[21] This aspect of Malabou's work has affinities with both a creolizing perspective that emphasises the creative and unforeseeable transformation of identities within a shared democratic project, and with the transformation of white identity encouraged by Linda Martín Alcott (see Chapter 7).

Nature, Ethics and Politics in Jonas and Bookchin

In addition to Malabou's new materialism suggesting ways that social ecology theory can be transformed towards an increased openness to the thought of the other, how might Continental philosophy engage more closely with life, and with a new understanding of nature? Hans Jonas in his *The Phenomenon of Life,* explores the way in which philosophy progressively divorced itself from the assumptions and concerns of a grounding in life that pervaded pre-Socratic thought, towards a preoccupation with that which is dead, the ultimate real of the inorganic constituents of life in the 'new monism' of scientific reductionism.[22] Jonas laments the severing of the ideal, with its relative potency in accounting for such phenomena as consciousness and will, from the material substrate, as earlier idealistic systems and dualisms foundered and collapsed. He posited the emergence of nihilism in both ancient Gnosticism and in the existentialist philosophy contemporaneous with his writing in the situation of the human being isolated within an indifferent nature (true even for the Gnostic and his transcendent God, alien to the realm of nature). Jonas develops a systematic and comprehensive philosophical interpretation of biology. He claims that mind and consciousness is prefigured

throughout organic existence, and that life-forms present themselves on an ascending scale of freedom of action, resulting in the capacity of humans for ethical behaviour (a theme he further expounds in his *The Imperative of Responsibility).*[23]

Jonas seeks an ethical foundation in the study of organic existence that would protect against such 'authentic' existential actions as Heidegger's embrace of the Third Reich. For the early Heidegger, *that* we commit became more important than *what* we commit to. Jonas suggests we must avoid a complete collapse into monism, whether objective or subjective. We need objective measures grounded in the study of the natural world.

Murray Bookchin's work builds on and further develops these themes. Already in the work of Jonas, we find the suggestion that the 'problem of nature' in Marxism and critical theory is not only a problem of the conceptualisation of nature, but also the conceptualisation of materialism. A 'new' materialism with the metabolic resources of a philosophical notion of plasticity, may be able to suture the age-old splits and wounds of idealism versus materialism, while providing an ontological 'helpline' to Bookchin's philosophy of social ecology. New materialism as formulated by Malabou avoids the various reductionisms that Bookchin targets, such as a mystical focus on the 'oneness' of natural forms as forms of 'energy', that ignores their evolutionary co-development into richly differentiated forms.

Ventilating the Closure of Social Ecology

Murray Bookchin's social ecology, examined closely in the preceding chapter as well as at other points in this thesis, offers a comprehensive and compelling vision, but critical questions remain. These questions hover around forms of rationality, logocentrism, ethnocentrism, the Enlightenment concept of the subject, and polemical forms of argumentation, and their relation to philosophic 'content'.

Bookchin argues strongly for an ecologised dialectic, as an alternative to mechanistic, scientific reductionism on the one hand, and to mysticism or intuitionism on the other. Certainly there are other forms of rationality, however, than that of the conventional logic of essential identity and dialectic, such as the forms of destruction and deconstruction which Malabou explores, that can articulate, explicate, and meaningfully interrogate processes of change, especially those social processes already involving language, with its structures of difference and deferment. We might accept the ontological premise of an active substance of life, as Malabou in fact does, providing additional support through her discussion of neuronal networks. We might also support the goals of creating social and political institutional structures that oppose domination in all its forms and that advance democratic participation to the greatest degree possible. Accepting these premises and goals does not mean however, that a specific form of thinking with its authorised interpretation is the only way to link the two.

Derrida suggests *reasonableness* rather than rationality, the latter being too complicit with a history of white, male, European, logocentric authority. Social ecology certainly presents a model that strives for theoretical closure, one that remains solidly within the metaphysical tradition with its emphasis on the positive, creative essence of 'active substance' and natural forms differentiating according to an immanent and directive *sensibilité.* The polemical form of Bookchin's writing impels an ethical either/or that eschews extended philosophical engagement with those traditions of thought that lie outside the 'Western organismic tradition' that he cites and hypostasises. This form at times has the paradoxical effect of flattening the dialectic from a more open-ended process toward a more rigidly determined scheme, such that, one might be led to think that holding a particular view of nature, an understanding of nature inspired, let us say, by certain indigenous traditions, must inevitably be

associated with a reactionary social and political trajectory subsumed in some of Bookchin's historical writing under the dismissive rubric of "shamanism".

I do not think such an attitude is conducive to building constructive alliances between predominantly white activists and Native activists, perhaps in the British Columbia example provided by Braun. Social ecology would benefit from more explicit exploration of epistemological issues—for example, might the reliance on scientific support for social ecology arguments be complicit with a scientific 'epistemology of rule', privileging this knowledge over what has sometimes been characterised as 'narrative knowledge',[29] especially if the history, social context, and implicit ideologies of official science are not directly questioned, as they might be within increasing calls for a 'science from below'.

To be fair, Bookchin did derive a significant part of social ecology theory from non-European sources. In his more historical and anthropological writings in *The Ecology of Freedom* he identifies ethical principles on the basis of a study of traditional indigenous societies and cultures, principles that characterise what he termed 'organic societies'.[30] If the science of ecology can be said to have established principles of interdependence and unity-in-diversity in and between natural eco-communities, these principles can also be observed to characterise the awareness and norms of organic societies. In addition, organic societies manifest ethical principles of reciprocity and complementarity, as well as the 'irreducible minimum', whereby the minimal needs of all members of a society must be met. These principles may represent more expansive ethical ideals for social and political movements than even the concept of justice, which developed historically, according to Bookchin, with the emergence of warrior societies. The horizon of freedom of newly subjugated peoples became constrained to notions of a nominal equivalence, ignoring the substantive 'inequality of [juridical] equals.'

Implications for Praxis

However, the relative lack of theory and writing in social ecology on ongoing forms of institutionalised and internalised colonialism, neo-colonialism, and racism may be said to condemn social ecology to its own performative self-contradictions. In so far as social ecology theory is centred in the epistemological standpoint of the putative universal subject of Enlightenment thought in the interests of articulating a 'general interest', the 'situated knowledges' of those who have suffered the most from capitalism, patriarchy, colonialism, racism, and militarism, undergo their own version of 'cognitive erasure'. The understandable call for moving beyond identity politics may result in ignoring the 'inequality of equals' by a theoretical stance that tends to minimise the substantive issues that need to be worked through. On a practical level, this stance may result not only in alienating potential allies, but in reifying a praxis that holds itself aloof from the enormous contributions that members of the global south have to offer social theory and social movements.

More promising in terms of creating broad multi-ethnic, trans-class, transformative movements free of gender-based oppression would be the Just Transition Assembly (JTA)-guided activism that has emerged out of People's Movement Assemblies (PMAs) and the World and US Social Forum processes.[31] These entities have developed organising strategies and principles that centre the experiences, voices, needs, desires, and decision-making power of frontline communities of colour. The need for an explicit orientation towards the perspectives of the Global South has become apparent through a movement history that has reproduced existing power relations, in which white voices have come to predominate and troublesome issues of racism and gender oppression are not given sufficient space to transform—dialectically or otherwise—into counter-institutional reconstructive forms. Within the PMA and JTA processes, for example, resistance to the prison-industrial complex in the US has

evolved into a prison abolition movement, and issues of police violence and the violence of men against women have evolved past 'community policing' to a framework of self-organised 'community safety'. These movement experiences point to the ways in which subjectivities and agencies form in relation to specific struggles organised around difference, yet which evolve towards more comprehensive understandings and movement goals. Asking individuals and communities to adopt from the start the perspective of the supposedly universal Enlightenment subject would be asking them to assume the very standpoint that, in many cases, they are struggling *against.* As we shall see, however, creolization theory suggests that in encounters of groups from the Global South with agents of dominant culture aspects of the universalising Western tradition can and often are adopted in creative ways that undermine their colonising logic.

Both the PMA/JTA and social ecology approaches recommend a focus on action in the local sphere; for example, offering arenas that remain less fully under the control of state and capitalist market forces. However, these local efforts must be linked together in order to constitute a viable alternative to the politics of capitalism and the state. Social ecology has articulated more explicit and concrete forms in which local efforts can be linked and coordinated. Bookchin's writing highlights the importance of what is defined as the authentic *political* realm, comprising [counter]institutional forms of decision making that emerge as a dialectical development or *differentiation* from social movement struggles. Bookchin formulates this new politics as one of a 'libertarian' or 'confederal' municipalism, seeking to reclaim the potentiality of urban cultural space in overcoming 'retribalization', or a politics that remains an identity-based politics.

The face to face assemblies characterising the proto-democratic decision-making processes at many points in history, going back to indigenous societies in pre-modern eras, would evolve into bodies invested in decision-making power in regard to the *policies* crucial to a particular area including

allocation and distribution of resources, while *administrative* functions would be carried out by workers' councils and other groups. These empowered assemblies at the local level would be confederated regionally, nationally, and internationally, with recallable delegates from the local assemblies mandated to represent the views of the majority of the local assembly at larger assemblies, an institutional mechanism designed to maintain decision-making power at the base of society. Ultimately, these forms of governance would restore the political realm displaced and appropriated by economic forces, through the decisive influence of corporate power in eroding any meaningful democracy. Over time, and not without considerable struggle and almost assuredly violent confrontation at certain moments, they would supplant the institutions of capitalism and the state.

Elements of these radical-democratic institutional forms have a broad history—for example, in networks of assemblies in indigenous societies, such as the Sioux Confederacy, in the confederated leagues such as the Swiss and German confederacies that posed alternatives to the emergence of the nation-state from the fourteenth to the eighteenth centuries, in the notion of confederation as it emerged within classical anarchism, and in the early stages of the international Green movement, before it became compromised by the tendency of chosen delegates to resist recall. These institutional *forms* are envisioned as emerging and developing dialectically; that is, they represent neither frozen forms of power relations nor haphazard improvisations, but are *informed* as the plastic realisation of the condition of social and political development. In Malabou's terms, these new institutional forms would literally embody a balance or equipoise in the *slope* of contingency and inner necessity, manifesting plasticity 'somewhere between total malleability and absolute rigidity'.[32]

Potentially, the social ecology vision of movement-educated, politically activated, and confederally linked communities suggests the development of new subjectivities and agencies within a politicised community. This revolutionary subject of the general interest of the diverse and politicised

community would supersede that of the worker within Marxist revolutionary praxis. As Bookchin often observes, the worker historically has become generally domesticated to existing power relations.

Relaunching a future

Malabou has argued that the trace is convertible into form:

> To state that nothing is unconvertible amounts to claiming the philosophical necessity of the thought of a new materialism, which does not believe in the "formless" and implies the vision of a malleable real that challenges the conception of time as a purely messianic process. It means that we can sometimes decide about the future . . . which means that there is actually something to do with it, in the sense in which Marx says that men make their own history.[33]

Further, the political implications of being able to 'sometimes decide about the future' may correlate with a shift among both theorists and activists from trust in *autonomian*-style 'spontaneous' anti-capitalist mass movements[34] to a recognition of a need for more conscious long-range vision and organizing approaches that would move beyond the relatively episodic and amorphous nature of recent Occupy and other movement efforts.

Also implied, I suggest, is a recovery of the potentiality of the development of consciousness, of active subjectivities able to manifest agency for fundamental change. In social ecology, self-development emphasises the capacity to contribute to public life and a general interest, similar to the ancient Athenian notion of *paideia.* This form of ethical self-development within and on behalf of community entails the ability to make arguments for positions within public assemblies, in other words, the capacity for political speech. Bookchin here echoes some of the concerns of Hannah Arendt in *The*

Human Condition, in her question about what happens to political speech informed by science, in an era already evident in the late 1950s, when many discourses of science were not translatable to common speech and understanding.[35] In addition, the importance of speech in articulating a positive expression of power in a political context in social ecology also suggests what Fredric Jameson has termed a form of political repression within poststructuralist thought, with its project of deconstructing logocentric speech as a will to [negative] power in the effort to master presence.[36]

Murray Bookchin's writing articulates as well a shift from the emphasis on 'spontaneity' in the 1960s and 1970s in his embrace of anarchism in reaction to more centralised Marxist organisational forms. Part of Bookchin's later split with anarchism was motivated by recognition of a need for a more articulated vision of potential forms of popular power, under the name of Communalism. Spontaneity versus organization, as Bookchin has commented, is part of a particular and ongoing historical dialectic. Bookchin's social ecology can be framed as an attempt to articulate a revolutionary vision and strategic approach between a vanguardist dogmatism and a series of autonomian 'spontaneous' uprisings of the 'multitudes'.

Adopting Malabou's terminology and approach, we may appreciate the resources of a deconstructed social ecology in providing a conceptual link between natural and social development, one that might go beyond the social constructionist standpoints presented by Castree and Braun. The latter, especially, may provide ideological cover for doing whatever we want in regard to environmental problems, as Bookchin notes.

Guided by a relaunched dialectical naturalism, one more attentive to issues of colonialism and race, we might first ask in relation to the British Columbia example cited previously, what is part of prior existing developments, and what is new in terms of more recent developments. This question

explores what new conditions—a new understanding of the limitations of previous models of resource development, for example—might dialectically make possible genuine advances toward goals that would truly realise *both* the well being of the forest eco-community and all its inhabitants, as well as those more distantly affected. The more managerial, technocratic, and bureaucratic models of rational resource management might begin to make ground for a dialectical rationality along the lines put forward by Bookchin.

Step by step, in an incremental way, this would initially mean effective movement building between European-American and Native communities that may indeed be facilitated by the use of such tools as indigenous map-making, as Braun describes. The 'hermeneutic pluralism' put forward by John Russon in relation to his discussion of Hegel's *The Phenomenology of Spirit* argues for a 'equalising' exchange of perspectives, none of which remain in a 'pure' state, given long histories of cultural mixing, appropriation, hybridisation, and creolization, moving towards increased systematicity or development.[37] I believe something like this process can be observed in the culture of movement making, within the People's Movement Assemblies and Just Transition Assemblies, for example.

Ultimately, a social ecology perspective—'relaunched' in a form displaying more sensitivity to issues of race and colonialism—offers a broader and longer-term vision of 'social hope', one that may seem utopian in the sense of being unrealisable, but which may also appear as the articulation of concrete reference points for a necessarily incremental process which may advance at times in more radical disjunctions. Thus in this example, activist networks might build on local successes to create larger zones of local control and participation in decision making, increasingly consolidating a powerful resistance to the corroding demands of both government and corporate pressures.

In this way, the decisive social ecology vision would be that of a movement, embodying among the many narratives a sufficiently shared narrative of liberation for effective solidarity, educated and ethically transformed by the culture of movement building itself and thereby strengthened in its sense of agency, finding its way audaciously, patiently, creatively and persistently to new [counter] institutional means of sustaining a genuinely post-capitalist society, a truly *other* future.

In addition to (indirectly) suggesting an approach to movement-building around an anti-capitalist future, I argue that Malabou's work offers direct ontological resources for articulating a *dialectical naturalism* within contemporary thought.[38] I now turn to the question of how to support a naturalism that avoids mysticism or naiveté on the one hand, and on the other, avoids providing a sophisticated modern rationale for naturalizing systems of domination or oppression.

Notes to Chapter 3

1. This brief account of the Sokal hoax is taken from Epstein (cited Note 2) and from John D. Caputo, ed., with commentary, *Deconstruction in a Nutshell: A Conversation with Jacques Derrida* (New York: Fordham University Press, 1997), 71-74.

2. Barbara Epstein, 'Postmodernism and the Left', in *New Politics*, 6, no. 2 (new series) whole series no. 22, (Winter 1997).

3. John D. Caputo, *Deconstruction in a Nutshell,* 73.

4. Clayton Crockett, *Derrida after the End of Writing: Political Theology and New Materialism* (New York: Fordham University Press, 2018), 1-2.

5. Jessica Dempsey and James K. Rowe, 'Why Poststructuralism is a Live Wire for the Left', 2004. Accessed 18 October, 2018, www.praxis-express.org.

6. See Jacques Derrida, *Voice and Phenomenon* (First published 1967) (Edinburgh: Edinburgh University Press, 2014).

7. Jacques Derrida, *Of Grammatology,* trans. by Gayatri Chakravorty Spivak (Baltimore: Johns Hopkins University Press, 1976).

8. Derrida quoted by Spivak in Ibid., 'Translator's Preface', xxv.

9. Derrida quoted by Spivak in Ibid., 'Translator's Preface', xxxi.

10. Derrida. *Of Grammatology,* 313.

11. Ibid., 230.

12. Jacques Derrida, "Form and Meaning', in *Margins of Philosophy,* trans. Alan Bass (Chicago: University of Chicago Press, 1982), 157-158. Quoted in Catherine Malabou, *Plasticity at the Dusk of Writing: Dialectic, Destruction, Deconstruction,* trans. Carolyn Shread (New York: Columbia University Press, 2010), 48.

13. Catherine Malabou, *Plasticity at the Dusk of Writing*, 13.

14. Catherine Malabou, *The Future of Hegel: Plasticity, Temporality and Dialectic* (New York, Routledge, 2005).

15. Catherine Malabou, *Plasticity at the Dusk of Writing*, 37.

16. Ibid., 37.

17. Ibid., 39.

18. Ibid., 58.

19. Ibid., 61.

20. Nancy Fraser, 'The Force of Law: Metaphysical or Political?' In Holland, *Feminist Interpretations of Jacques Derrida*, 157-164.

21. See discussion of Bhandar and Goldberg-Hiller's article in *Plastic Materialities* in Chapter 7 of this thesis.

22. See Hans Jonas, *The Phenomenon of Life: Toward a Philosophical Biology.* Evanston, Illinois, Northwestern University Press, 1966.

23. Hans Jonas, *The Imperative of Responsibility* (Chicago: University of Chicago Press, 1985).

24. Murray Bookchin, *The Philosophy of Social Ecology: Essays on Dialectical Naturalism* (Montreal: Black Rose Books, 1996).

25. Ibid., 15.

26. Ibid., 37.

27. See Andy Price, *Recovering Bookchin,* cited in Chapter 1, Note 14.

28. Lynn Margulis, *Early Life* (San Francisco, W.H. Freeman, 1981). Quoted in Bookchin, *The Philosophy of Social Ecology*, 61. Margulis is identified with the Gaia hypothesis, along with James Lovelock, its principle author, beginning in the 1970s. For Margulis, this does not mean the earth is a single organism, but rather that life from a planetary perspective is guided by complex, self-monitoring and self-regulating processes. See Margulis, *Symbiotic Planet: A New Look at Evolution* (Amherst, MA: Basic Books, 1998).

29. See the discussion by Seyla Benhabib of narrative vs. discursive knowledge in relation to Lyotard in her "Epistemologies of Postmodernism," cited Note 32.

30. See Murray Bookchin, 'The Outlook of Organic Society', in *The Ecology of Freedom* (Palo Alto: Cheshire Books, 1982), 43-61.

31. See http://www.peoplesmovementassembly.org.

32. I am referring here to Malabou's characterization of the 'slope' of contingency and necessity in her discussion of Hegel in *The Future of Hegel,* cited in Note 14, and her discussion of identity and plasticity in *Plasticity at the Dusk of Writing,* in Note 12.

33. Catherine Malabou, *Plasticity at the Dusk of Writing*, 77.

34. See Michael Hardt and Antonio Negri, *Multitude: War and Democracy in the Age of Empire* (New York: Penguin Press, 2004).

35. Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1958), 4.

36. See Fredric Jameson, *The Political Unconscious: Narrative as a Socially Symbolic Act* (New York: Cornell University Press, 1981).

37. See John Russon, *Reading Hegel's Phenomenology* (Indianapolis, Indiana University Press, 1984). Briefly, Russon argues that the call to be consistent with the implications of our everyday perceptual experience constitutes a philosophical imperative that is also an ethical imperative. This ethical imperative goes beyond the formal ethics of Kant to an ethics of "hermeneutical pluralism." The perspectives of others may initially lead to potentially violent conflict, as each perspective attempts to realise its desire to be seen as absolute. But in the famous dialectic of 'lordship and bondage' or 'master and slave', the slave experiences 'hermeneutical pressures' towards objective accuracy in "reading" the master's demands correctly. Over time, knowledge becomes in effect the *aufhegoben* of desire. The slave's interpretive acts—themselves the acts of an autonomous consciousness—lead gradually over a series of subsequent stages to an intersubjectivity that moves in an equalising direction. We learn to respect the other as potentially an absolute knower, and we must translate the all embracing character of absolute knowledge to the particular language of the social world in which we operate, in order to recognise the point of view of the other and participate in mutually creating a supportive environment for dialectical development. This process must be worked out in a contingent, existential manner. I would add that the "contingent, existential manner" would also need to involve an openness to challenges to the philosophical assumptions of even Russon's Hegelianism.

38. I in no way mean to suggest that Malabou shares Bookchin's revolutionary project or is even aware of Bookchin and his writings. Bookchin was probably not aware of Malabou's writings either, and died before her work came into prominence. Malabou's investigations are ontological, with epistemological, ethical, and political implications suggested, but not directly pursued at any length. Clayton Crockett draws from Malabou among others in his call for a radical democracy in *Radical Political Theology: Religion and Politics After Liberalism* (New York: Columbia University Press, 2011). Additionally, Crockett argues for a post-secularism, a project I am in sympathy with, but which is well beyond the focus and scope of this thesis.

Chapter 4. Naturalism in Question, Part 1

In the next two chapters, I examine the question of how a viable naturalism might be formulated for our time, a naturalism that might survive both deep ecology criticisms, and the suspicions about naturalising assumptions that inform deconstructive orientations toward the social construction of nature. In order to avoid both these pitfalls, this new naturalism could draw from Murray Bookchin's holistic reflections on nature and natural evolution, and from Catherine Malabou's new materialism. The present chapter begins with a historical and philosophical framing of contemporary ethical discourse. Next, I examine Bookchin's response to his deep ecology critics. I then assess what Glen Albrecht refers to as Bookchin's 'directionality thesis' through the scientific lens of complexity theory. In this regard, I offer a brief survey of recent scientific research in the interests of updating scientific support for Murray Bookchin's philosophy of nature, emphasising the shift from the primacy of genetic determinants to the increasing recognition of epigenetic factors in evolutionary theory.

How are we to assess Bookchin's attempt to ground an ethics in an understanding of nature and natural evolution, an ethics that would inform a revolutionary transformation of society and politics towards an ecological society where humans would live harmoniously with each other and with the natural world? To begin such an assessment requires a transdisciplinary inquiry implicating a complex nexus or ecology of discourses among science and philosophy, Anglo-American and Continental philosophy, and academic critique and organic revolutionary polemic. In this assessment I am inspired partly by Malabou in her inauguration of a conversation translated across multiple languages and idioms between neuroscience and a *plastic* reading of key philosophers in the Western tradition.

In this chapter, I argue for social ecology as a non-reductive naturalism that avoids the limitations and dangers of at least some versions of deep ecology and both Marxist and post-structuralist forms of social constructionism. Nevertheless, I argue that the social ecology attempt to

ground an ecological ethics in nature ultimately fails in terms of what has been termed Bookchin's 'directionality thesis'. In Chapter 5, however, I argue that Malabou's work offers a way to think about the development of an 'epigenetic model of rationality' grounded in 'the chance alliance of nature and freedom', that has important implications for a plastic reading of the social ecology project of an ecological ethics.

Contextualising Ethical Discourse

A thoroughgoing analysis of the intellectual history and context of contemporary environmental ethics is well beyond the scope of this inquiry. However, the question of an ontological ground for an ethics, especially with regard to continental philosophy, can be traced back to Nietzsche's confrontation with nihilism, as interpreted by Heidegger. In his *Letter on Humanism,*[1] Heidegger rejects Nietzsche's and Sartre's proposed solutions to nihilism as the demand that we create value through willed acts of valuing. For Heidegger, such a stance ignores the meaningfulness we find all around us, in the unconcealment that names the giving and the givenness of beings. Being, rather than the ontotheological image of a Being supplying us with beings or forms of understanding, is instead the dynamic event of beings presenting themselves to us, as well as the 'space' in which they become manifest. Heidegger writes, 'The self-giving into the open, along with the open region itself, is Being itself''.

Consciousness does not actively constitute the world and imbue it with value, as with Kant's Copernican Revolution as extended by Nietzsche. Our openness is not of our doing; the relation of thinking to Being is the gift of Being. Our ultimate ways of thinking which define us as recipients of our particular epochal understanding of Being form the foundation for our thought, but they themselves cannot be justified or grounded, because they determine what counts as justification in the first place.

This does not rob them of legitimacy, but instead is the only possible source of legitimacy. Heidegger uses the phrase 'groundless ground' to describe the ways in which these ultimate ways of thinking are located within the wider context of the destiny of truth.

In the disclosure of truth as *aletheia* or unconcealedness, we 'stand in the clearing of Being amongst beings rather than being closed up in some kind of inner mind'. Heidegger refers to this standing in the clearing of Being as 'ek-sistence', a term by which he attempts to go beyond the traditional metaphysical opposition of essence and existence: ek-sistence is existence understood in light of its etymological roots in 'ecstasis', or 'standing outside oneself'.

The dynamic disclosing of beings is historical in the sense that Being is revealed in radically (and incommensurable) ways in different epochs, 'the ek-sistence of man is historical as such'. Heidegger discusses ethics in terms of its etymological origin in *ethos*, or 'dwelling place'. The place where we dwell in our thoughts and our actions points to the clearing. This thinking of ethics adapts the perfectionism of Aristotle's *Nicomachean Ethics,* in which we find what activities make us distinctive (our *ergon*), and then perform these activities with excellence (*arête*). For Heidegger, our distinctive activity reveals Being, therefore being a good person is to reveal Being well; thus, thinking about the truth of Being is the original ethics.

Tragically, thinking about the truth of Being, absent certain standards as advanced by Kant and others in the modern era and dismissed by Heidegger as derived and secondary, led to an anti-modernism as well as to an embrace by Heidegger during the Nazi era not merely of traditional German conservatism and of a virulent antisemitism, with its *volk*-based invocations of 'blood and soil', but also of the ideology developed by a whole generation of German 'conservative revolutionaries', of whom Ernst Jünger is the most significant. Like Heidegger, Junger was deeply influenced by

Nietzsche's critique of 'European Nihilism'. Richard Wolin writes, 'In fact, it would not be much of an exaggeration to say that [Heidegger's] 'option' for National Socialism in the early 1930s was based on the supposition that Nazism was the legitimate embodiment of the *Arbeiter-gesellschaft* (society of workers) prophesied by Jünger and which, as such, represented the heroic overcoming of Western nihilism as called for by Nietzsche and Spengler'.[2]

Though Bookchin shares the project of finding a ground for thought beyond the arbitrary willed projections of isolated subjectivities, he moves in quite a different direction, beginning with a view of Pre-Socratic thought not as a golden age of the disclosure of Being, but rather as one in which ethical thought in terms of *Dike* or justice and other concepts was seen as inherent within the natural world. Bookchin seeks to rearticulate the link between ethics and the natural world, but not in terms of an anti-modernism; he looks instead to support from more recent non-positivistic science.

Bookchin attempts not only to move beyond forms of nihilism but also to overcome the way in which the Enlightenment divested the natural world of the ethical content evident in the Hellenic sensibility, producing an objective cosmos that had order without meaning. In this regard, Alasdair Macintyre criticises contemporary moral discourse because of the persistence of the Enlightenment concept of the autonomous moral agent and individualistic language of rights in a social and historical context in which it no longer has practical relevance.[3] Such a condition, according to Macintyre, has produced an 'incoherent' scheme for ethical thought where there is now no relevant context or ethos where our ethical concepts can meaningfully be put to work. Resolution of conflicts about competing rights occurs through 'manipulative modes of relationship'. Ethics in general is in a state of despair, especially given the relativism and nihilism of the prevailing postmodern moods.

Bookchin, as we have seen, tends to dismiss rather than to engage substantively with 'postmodern' philosophy, caricaturing it as 'yuppie nihilism'. He might have included deconstruction in the same category, but of course Derridean deconstruction is anything but nihilistic. Derrida was deeply influenced by the thought of Emmanuel Levinas, a onetime student of Heidegger, who reacts to the latter by formulating an ethics as primary over ontology, on the basis of the originary opening to the 'face' of the Other. But Derridean deconstruction, to the extent that it has shaped nature constructionist discourse, has imparted a caution against any attempt to ground an ethics in nature, given the complicity of any such effort with the essentialising metaphysical tradition. In its influence on feminism and critical race theory, this has become disseminated as a critique of the odious history of the naturalising of gender and race concepts.

As noted in previous chapters, Bookchin develops a philosophy of nature that can be seen as navigating a course between 'nature-endorsing' perspectives such as deep ecology, and more recent 'nature-sceptical' or social constructionist perspectives, whether informed by post- or neo-Marxist concepts or by recent Continental philosophy, deconstruction in particular. Bookchin does not engage directly with nature-constructionist thought, but participates in often acrimonious debates with deep ecologists. How successful was Bookchin's critique of deep ecology? I now turn to this question.

Social Ecology versus Deep Ecology

In *Recovering Bookchin* Andy Price presents a critical assessment of Bookchin's philosophy of nature, the primary aim of which is to rescue the integrity and coherence of Bookchin's thought from the caricature created by his deep ecology critics.[4] In addition, Price defends Bookchin's philosophy of nature against more substantive critiques from a deep ecology orientation, such as those of Robyn Eckersley. Eckersley argues that Bookchin ignores the 'Achilles' Heel' of environmental ethics,

namely, the basic fact/value distinction—the difficulty of deriving an 'ought' from an 'is'.[5] The operating procedures of nature as revealed or supported by the sciences of natural evolution can never be an *a priori* guide for establishing a set of values. The relatively 'blind' choices of organisms in the natural world cannot be equated or meaningfully linked to the conscious creation of values and systems of ethics in the human world. Price defends Bookchin's position, however, calling it an 'ongoing protest against the myth of methodology; notably, that the techniques for thinking out a process can be separated from the process itself'.[6] Price observes that Bookchin purposively intended to blur the separation of the 'is' and the 'ought'. This separation for Bookchin

> would deny speculative thought the right to reason from the "what is" to the "what-should-be." This positivistic mousetrap is not a problem in logic as it is a problem in ethics and the right of the ethical "ought" to enjoy objective status [. . .] . *To remain within the "is" in the name of logical consistency is to deny reason the right to assert goals, values, and social relationships that provide a voice to the claims of ecology as a social discipline.*[7]

As Price observes, Bookchin's holism is nothing less than a direct challenge to the 'is/ought' separation. In his view of the graded continuum of natural evolution, from the simplest organism to the complex expression of nature in the consciousness of humanity, Bookchin does not privilege one or the other. The 'is' of their existence and their process creates not only the material reality of nature but the ability of nature's most conscious expression—humanity—to identify this reality and on it to ground a system of values.

Other deep ecology criticisms centre on the allegation that Bookchin claims to have discerned the 'one true path' of evolution despite the historical evidence that many trends can be observed. Price

responds by emphasising that Bookchin never denies the existence of counter-trends in evolution, arguing that of course in the natural world 'coercion does exist [. . .] so does pain and suffering'.[8] The capacity for the emergence of these conditions could be termed a potentiality, and an ethics could be built thereon, as happened most strikingly with Hitler's fascism. In comparison with the continuous natural and social directionality toward increasing complexity, however, instances of natural and social coercion appear sporadic, and do not provide enough material, according to Bookchin, from which a potentiality can genuinely be elicited. He argues therefore that these instances evidence a *capacity* that inheres in evolution rather than a potentiality.

Another criticism of Bookchin's natural philosophy is that he makes use of analogies such as the growth of an oak tree from an acorn or a bird from an egg that are simplistic, and inadequate for understanding the complexities of historically conditioned social processes. As Price notes, however, such analogies serve only an incidental illustrative role in his discussions of dialectical development; the drawing out of the social and political implications of his philosophy is the main focus of his work as both a theorist and an activist. In his social and political writings as we shall see, Bookchin is as alert to the historical complexity of social processes as any contemporary writer on political economy, if not more so. Nor, of course, does he view social and historical processes as governed by a 'hard' teleology in the same way that the acorn contains DNA for an oak tree and nothing else, however much genetic mutations, epigenetic factors—and sheer environmental contingency—may play a role. Bookchin is decidedly *not* a naturalistic or biological determinist, and indeed argues passionately against such positions as sociobiology.[9]

Bookchin's Response to Eckersley

An additional criticism of Bookchin's natural philosophy from a deep ecology perspective is that it is deeply anthropocentric, privileging humanity over nature in its advocacy of human stewardship. Price quotes Robyn Eckersley:

> are we really *that* enlightened? Can we really be sure that the thrust of evolution, as intuited by Bookchin, is one of advancing subjectivity? In particular, is there not something self-serving and arrogant in the (unverifiable) claim that first nature is striving to achieve something that has presently reached its most developed form in us—second nature?[10]

In addition, Price quotes Eckersley's assertion that Bookchin misunderstands deep ecology's biocentric or ecocentric orientation toward 'non-favouritism' in the natural world. Eckersley argues against what she sees as Bookchin's critique of deep ecology, clarifying that

> this does not imply the passive surrender of humans to the natural order as Bookchin has claimed, since humans, like any other organism, are recognised as special in their own unique way and are entitled to modify the ecosystems in which the live in order to survive and blossom in a way that is simple in means and rich in ends. In this orientation, it is not inconsistent for humans to act in their own self defense by keeping in check or eradicating life threatening organisms *where there is no alternative* (and where the action is taken with reluctance).[11]

Price observes that Bookchin refuses both the anthropocentric opposition of humanity and nature, *and* the subsuming of humanity into one undifferentiated 'whole', wherein there is no

difference but rather a 'biospheric egalitarianism'. If a life-form needs eradication or preserving, only one species has the capability to do so:

> Whatever rights or other ethical formulations that we develop in an ecological ethics, the fact remains that *we* as a species are the sole ethical agents on the planet who are able to formulate these rights, to confer them, and to see that they are upheld. Whether these rights are formulated and upheld, I must insist, depends overwhelmingly upon the kind of society we create and the sensibility it fosters.[12]

Price comments astutely:

> Herein lies the fundamental failing of Eckersley's critique of Bookchin: while the major complaint is that Bookchin privileges second nature as "arrogant", in the very moment she makes the complaint, she appeals to those same characteristics, albeit unwittingly. That is, it appears that Eckersley applies these values piecemeal: on the one hand, she denies them their importance and potential as grounds for the human ordering of the world along ecological lines, while simultaneously on the other hand, appeals to them in determining what would make up the characteristics of a "life threatening organism" and when and where to eradicate such organisms. However, it should be noted that there is *no* difference in her notion of deciding whether there is "no alternative" in eradicating organisms in the natural world, or that it must be carried out "with reluctance" from Bookchin's own notions of human stewardship of nature as a whole.[13]

Directionality in Nature: Glen Albrecht

However, if we accept Bookchin's critique of deep ecology, even its more sophisticated articulations from Robyn Eckersley as assessed by Price, the question remains of how social ecology can avoid the pitfalls of a naturalism founded on a teleological understanding of nature. Concerns about such teleological nature philosophies form one of the currents of various 'nature-sceptical' social constructionist approaches. Bookchin himself criticises social Darwinism for its teleological underpinnings. Yet he claims that we can identify in natural evolution a *nisus* or tendency towards an increasing complexity and potential for subjectivity, choice, and freedom. As we examined in Chapter 2, Bookchin argues that this tendency forms an *objective potentiality* on which to base an objective ecological ethics, and he marshals some of the scientific research of his time to support this claim. However, can this claim be supported today from a scientifically informed philosophical perspective in the light of more recent biological and evolutionary research and thought?

The issue of a directionality in nature that may serve as an objective ground for an ecological ethics is explored in a well-constructed article by Glenn Albrecht in 'Ethics and Directionality in Nature'.[14] He notes that despite Darwin's ambivalence towards normative evaluations of the theory of evolution in his own work, there has been no shortage of theorists prepared to derive some notion of ethics from evolution, beginning with Herbert Spencer in his 1851 *Social Statics.* Life in nature and in society was seen as a competitive struggle for the 'survival of the fittest' at the expense of 'less fit' humans. Social Darwinists and neo-Malthusians have followed Spencer in reading a competitive and individualistic ethics from nature.

Contemporary ecoanarchists and others, following Peter Kropotkin's conception of *mutual aid,* have seen a different story in evolution. Murray Bookchin presents perhaps the most philosophically sophisticated argument for viewing a tendency or overall directionality in nature towards increasing

diversity and complexity and the potential for freedom, from which can be discerned an implicit ethics. Drawing as previously discussed from then-current bioevolutionary literature, including work by Cairns-Smith, Trager, Margulis, and Lewin, Bookchin sees symbiotic relationships and cooperation as a more important feature of natural evolution, propounding an ethics that informs his social and political philosophy based on this understanding of evolution. Bookchin grounds an Aristotelian and Hegelian view of the spontaneous unfolding of potentialities in life in a naturalistic understanding, when he writes:

> Hence our study of nature . . . exhibits a self-evolving patterning, a "grain", so to speak, that is implicitly ethical. Mutualism, freedom, and subjectivity are not strictly human values or concerns. They appear, however germinally, in larger cosmic and organic processes that require no Aristotelian God, no Hegelian Spirit to vitalize them.[15]

These implicit values in nature must be made explicit by us, through the use of our capacities for self-reflexive rationality that are themselves the product of natural evolution. We can self-manage our own affairs in such a way as to remake society along lines that restore the harmony between the natural and the social, guided by the ethical impetus inspired by a realist understanding of how life is structured and how organic processes work. Social ecology promotes efforts that go with the 'grain' of natural evolution, such as ecocommunities that make use of humanly–scaled renewable energy sources and organic food production, organised by directly democratic and confederated forms of self-management, artfully integrated into local environments.

Bookchin argues that the social values that arise out of a naturalistic ethics—unity in diversity, spontaneity, and non-hierarchical relations—are *objectively* grounded in this understanding. He claims

they are 'the elements of an ethical *ontology,* not rules of a game that can be changed to suit one's personal needs'.[16] Bookchin is thus arguing for an ethical realism in which the source of value exists independently of any human value, and can be discovered along with other facts of nature. Despite his criticism of 'scientism' and reductionist science, his theories align with the intellectual project of a scientific realism.

Albrecht proceeds to examine some of the chief objections to Bookchin's directionality thesis in contemporary ecophilosophy. He suggests that new developments in complexity theory may strengthen and expand Bookchin's thesis. In terms of the various ways that Bookchin characterises nature and natural evolution this may be true, as we argue next; but can the central thesis of an overall directionality be sustained? The remainder of this chapter examines these questions from the perspectives of complexity science and recent evolutionary theory.

Scientific Support Updated

Increasingly, as we shall see, the sciences are arriving at what are recognised as philosophical problems, and the 'evidence' upon which a philosophy of social ecology must stand or fall is more than empirical observation of facts that are simply given. Especially since the so-called Kuhnian revolution in the understanding of paradigm shifts in scientific knowledge and research, it is increasingly acknowledged that scientific approaches are theory-laden. As one instance, philosopher, sociologist, and writer on complexity Edgar Morin in 'Restricted Complexity, General Complexity' traces the emergence of the paradigm of complexity from a number of earlier sources.[17] Some of the features he associates with complexity theory have clear affinities with social ecology—for example, the creativity of life, the recognition of 'the organizing complexity of physicochemical matter between reductionism and vitalism', the notion of an 'evolutionary creativity', the importance of contextualization for the

production of knowledge, and the potential renewal of the idea that science and philosophy are part of a joint (though independent) intellectual project, and that the advanced sciences have arrived at philosophical problems they thought to have left behind, and can help to solve them, along with philosophers.

Murray Bookchin articulates a coherent set of claims about nature, a 'nature' understood primarily in terms of a philosophical interpretation of natural evolution, informed as we have seen by the work of a select group of scientific researchers. These scientists, such as Lynn Margulis, may not even today be said to represent fully the mainstream or majority view of evolutionary theory. It can be argued however, that the aspects of evolution they emphasise—acknowledgement of the way in which organisms actively shape rather than passively adapt to their environmental contexts, recognition of the importance of cooperation, and of symbiosis in natural evolution—continue to gain support.

I argue that the research of Lynn Margulis on symbiosis and Peter Corning's writing on the 'Synergy Hypothesis' both represent elaborations of mutualism in natural evolution. The notion of mutualism derives from Peter Kropotkin, who was a naturalist as well as an anarchist theorist. In 1902 Kropotkin published *Mutual Aid: A Factor of Evolution*, a series of essays emphasizing the role of cooperation and reciprocity in animal and in human societies. In these essays Kropotkin argues against the theories of social Darwinism that were based on notions of a competitive 'survival of the fittest' as the motor of natural evolution. Kropotkin's work is seen as a catalyst for the biological study of cooperation, and it greatly influenced anarchist thought, as well as Bookchin's reading of natural evolution and his social philosophy.

Mutualism in nature can be seen in recent research into symbiosis in biology. Though biologists generally consider symbiosis a broad category that includes relationships that are mutualistic, parasitic, or commensal (in which one organism benefits while the other is neither hurt nor helped), mutualism

remains a symbiosis. The work of evolutionary cellular biologist Margulis centres on symbiosis, the term coined by the German botanist Anton deBary in 1873, and defined as the 'living together of differently named organisms'. Margulis argues that long-term cohabitation results in certain cases in symbiogenesis, the appearance of new organs, new bodies, and new species. More strongly and more controversially, she asserts that most evolutionary novelty arose and still arises from symbiosis. She characterises this as the development of individuality by incorporation. Her theory is now known as serial endosymbiosis theory (SET). SET is based on four provable postulates, each of which involve symbiosis, incorporation, body fusion, and symbiogenesis.

In addition, discussions of 'synergy' in nature can invoke concepts of mutualism and cooperation in natural evolution. In his book *Nature's Magic*[23] Peter Corning offers his 'synergism hypothesis' of natural evolution. Synergy may seem an overly amorphous concept, but Corning defines it more convincingly in relation to his 'Holistic Darwinism', encompassing 'Neo-Lamarkian selection', which identifies synergism at many levels and in many forms, including the symbiogenesis associated with the work of Lynn Margulis, and an enhanced role of cooperation in natural evolution. Ultimately, Corning supports a middle way between the interpretation of evolutionary development as the expression of a deep natural 'law' and an aimless narrative, citing but rejecting Stephen Jay Gould's portrayal of evolution as a process of pure contingency.

Accordingly, we must supersede "neo-Pythagorean" reductionist monocausal and mathematical accounts and view evolution as shaped by four distinct influences: chance, necessity, teleonomy, and selection. Teleonomy is internal biological purposefulness rather than external teleology. Further, these influences need to be understood within principles of a hierarchical organisation, wherein unique boundary conditions or constraints at each level are irreducible to lower-level laws. It should be remembered that 'hierarchical organization' in this sense is distinct from the social ecology definition

of social hierarchy as enduring and institutionalized social systems of command and obedience maintained by actual or threatened coercion.

Corning supports the importance of cooperation in natural evolution, which he expresses in terms of his synergy hypothesis. He notes, however, that cooperation and competition are intertwined, that many forms of cooperation are related to improving competitive abilities, and that the same animals may cooperate for certain purposes and compete at other times. Over all, though, he argues that mutually beneficial reciprocity as a form of synergy predominates.

In addition to mutualism, Bookchin further characterises nature in terms of spontaneity and self-organisation. Potentially supporting these aspects of Bookchin's naturalism, Stuart Newman has recently theorised the non-Darwinian self-organising processes of organisms, also giving new credibility to the idea of an orthogenesis, supposedly abandoned as 'Lamarckian', that may provide evolutionary synthesis with a coherent theory of form.[18] His views support the active and self-organising role of organisms, beginning at the dawn of the evolutionary drama. Newman hypothesises the way in which life self-organised about a billion years ago using 'toolkit' genes to transform from single-celled highly plastic organisms into multicellularity in the Cambrian explosion when virtually all of today's modern animal forms first appeared. These toolkit genes, some of which, called dynamical patterning modules (DPMs), mobilise basic physical forces and processes, along with others, termed developmental transcription factors (DTFs), which enabled multicellular animals such as metazoas a millimetre in size to build cavities, layers of tissue, segments, extremities, and primitive organs. Newman claims these processes—especially those regulated by DPMs—are more central in evolution than is Darwinian natural selection. Echoing Malibou's rejection of 'neuroscience ideology' in *What Should We Do With Our Brains,* Newman has warned of political warping of scientific research under

capitalism. 'Genetic determinist ideology', he writes, 'comports well with the worldview of advanced capitalism'.[19]

A number of epigentic mechanisms have recently been researched that move beyond the paradigm of genetic determinism. As summarised recently by Eva Jablonka and Marion J. Lamb,[20] these include self-sustaining feedback loops that enable daughter cells to inherit patterns of gene activity in the parent cell. Structural inheritance refers to forms that carry hereditary information in their structure, including heritable self-perpetuating membranes that template the formation of more cellular membranes with the same structure; and *prions* or proteins with abnormal conformations. Other types of epigenetic inheritance system or EIS mechanisms include chromatin-marking systems such as heritable methylation patterns that influence how easily genes can be turned on and off. Chromatin-marking systems include study of the ways in which combinations of differently modified nucleosomal histones form marks that affect the binding of specific regulatory factors. A fourth type of EIS is RNA interference (RNAi), which results in stable and heritable silencing of specific genes.

Further, Jablonka and Lamb assert that natural evolution is now better understood as the interplay of four distinct but reciprocally influencing inheritance systems, which together comprise an 'evolution in four dimensions' or E4D model. In addition to the genetic and epigenetic systems, they include a behavioral inheritance system (BIS) and a symbolic inheritance system (SIS), the last referring to human evolution.

The social ecology emphasis on the way organisms play an active and creative role in shaping their ecological niches is now widely supported by evolutionary scientists. Jablonka and Lamb summarise the studies of Barbara McClintock in this regard. Her research has been influential for social ecologists in terms of evidencing the innovative and creative role of organisms in their own evolution. Through her work on maize cytogenetics, McClintock discovered transposition and the role

of genes in turning physical characteristics on and off. McClintock's work has been referenced recently by molecular biologist James Shapiro, in his *Evolution: A View from the 21st Century.* Shapiro writes:

> How does novelty arise in evolution? Innovation, not selection, is the critical issue in evolutionary change. Without variation and novelty, selection has nothing to act upon.[21]

The social ecology critique of assertions of social hierarchy as somehow 'hardwired' by natural evolution can be argued based on recent research. Though researchers have identified varying patterns of dominance hierarchy in primates and other mammals, birds, fish, and even eusocial insects, social ecologists argue that these cannot be used to naturalize enduring and institutionalized human systems of command and control, domination and oppression. Much interpretation of animal behaviour is contaminated by projections of institutionalised human hierarchy. Though various patterns of dominance hierarchy among primates can be seen, the variability of these patterns, from the rigid hierarchy of baboon groups to the relatively 'egalitarian' social relations of bonobos, argue against the assumption that social hierarchy can be seen as genetically determined.

The consideration of hierarchy includes how we interpret biological systems at many levels, including the human brain. Our understanding of the brain has shifted from one of fixed regions of command and control during the period of Fordist production, to one of relatively decentralised neuronal networks during the period of neo-liberal capitalism, with its decentralised system of "just-in-time" production. Recent neuroscience research has supported a view of neuronal networks in the brain as operating in a spontaneous and non-hierarchical fashion. In her philosophical reflections on the neuroscience of the brain in *What Should We Do with Our Brain?,* Malabou relates notions of both

hierarchical brain centrality and the decentralised flexibility of neuronal networks to changing regimes of capitalism, and deconstructs both, especially regarding the way in which 'neuronal ideology' naturalises neo-liberal capitalism. Neuroscientific research into neuroplasticity has exposed the limits of the hierarchical and cybernetic models of the brain, but the notion of *flexibility* reinscribes a 'spirit of capitalism' in the form of demands for flexibility on the job, in one's schedule, in factories and so forth. However, these meanings of flexibility fail to grasp the full range of Malabou's plasticity, the capacity to give form, to create, to invent and also to erase an impression—not merely to receive a form in a docile way without exploding. For Malabou,

> securing a true plasticity of the brain means insisting on knowing what it can do and not simply what it can tolerate. By the verb *to do* or *to make* [*faire*] we don't mean just 'doing' math or piano but making its history, becoming the subject of its history, grasping the connection between the role of genetic nondeterminism at work in the constitution of the brain and the possibility of a social and political nondeterminism, in a word, a new freedom, which is to say: a new meaning of history.[24]

Assessing Evolutionary Directionality

A significant body of recent research may thus offer support for Bookchin's dialectical naturalist view of nature defined in terms of natural evolution, and exhibiting features of spontaneity and self-organisation, creativity, mutualism, and non-hierarchy. The question of overall directionality, however, is more problematic. In an influential text, *Into the Cool,* Eric Schneider and Dorian Sagan argue for the directionality of evolution towards increasing complexity, driven and shaped by the

continuing overcoming of energy gradients in non-living and living systems, according to a revised and enlarged understanding of the second law of thermodynamics.[25]

Schneider and Sagan argue that thermodynamics is a necessary but not sufficient explanation of the emergence of complex natural systems; we need evolutionary understanding as well. However, they assert that 'the facts of life's increase in evolutionary complexity . . . which tend to be disregarded because there is no place for them in orthodox evolutionary theory, make sense when we consider life along with other natural systems of energy flow'.[26] In their study of ecosystems, Schneider and Sagan show how the autocatalytic structures produced in the thermodynamic process allow organisms to prosper on a variety of gradients. They argue that 'ecology and evolution show similar directional tendencies', and that evolution is pushed or 'sucked' (drawing on terminology used by Lynn Margulis) in the direction of ecological succession. They differentiate short-term factors in ecosystems with a relatively fixed gene pool versus evolution as a whole, but point out that both exhibit energy-shaping influences on complex systems. Ecosystems generally go through an initial start-up phase, followed by a phasing out of rapid growth, as the initial phase gives rise to increased cycling and diversity. Ecosystems exhibit many features of what may be characterised as unity-in-diversity, with increasing diversity resulting in increased evolutionary rates and pathways. This last assertion made by Schneider and Sagan of unity-in-diversity supports another of Bookchin's frequent characterisations of ecocommunities and natural evolution.

Linking ecosystem analysis to consideration of the long history of evolution, Schneider and Sagan argue that a

> suite of factors—energy efficiency, energy throughput, biomass storage, species diversity, cycling, homeostasis, and residence time of biologically important elements—are involved in ecosystem development . . . [and this] same suite of factors also increases over evolutionary

> time, thus giving directionality to the evolutionary process . . . ecological and evolutionary processes exist along a temporal continuum. Thus we are entitled to assert an overall directionality to natural processes, guided by both thermodynamic energy gradients and evolutionary factors.[28]

This argument for directionality is challenged however by biologist, behavioral geneticist, and science writer Peter Corning (cited previously in relation to his synergy hypothesis). He critiques Schneider and Sagan, not convinced that the purpose of life is to overcome energy gradients.[29] 'Real-world biology' he writes, imposes limitations and complications on 'monolithic thermodynamic determinism'. Corning asserts that Schneider and Sagan conflate energetic order or available energy with physical order and use the term 'organisation' for both. However, there is a fundamental difference between living cells and *Benard* cells—the former imply cybernetic properties, engineering/functional design, information and feedback; the latter do not. Here, Corning evidences an orientation towards systems theory in his approach, an approach that resurfaces issues of the limitations of a functionalist, managerial, and engineering approach towards understanding 'life'.

According to Corning, there is a longer list of 'sufficient conditions' than Schneider and Sagan acknowledge, including nitrogen fixing (here Corning cites Lynn Margulis's studies of bacterial engineering), which are often more important than available energy in accounting for ecosystem constraints. Rather than thermodynamic energy gradiants superimposing causal determinations, the 'multi-faceted problem of survival and reproduction takes priority, and energy is a means'.[30]

For one thing, Schneider and Sagan ignore the anti-entropic action of gravity. Entropy and energy gradients may be a small consideration compared to the role of gravity through nucleosynthesis, dark matter, and dark energy in the universe. We do not yet understand gravity well enough to posit a

suite of physical forces guiding and constraining evolution that would include its effects as well as those of energy gradients. Corning argues that we need to keep the Second Law in its place as an influence secondary to more compelling biological purposes.

Progressive Evolution Challenged

The sceptical "foil" confronting supporters of Murray Bookchin's directionality thesis is personified most eloquently by Stephen Jay Gould. Gould and Niles Eldredge put forward their theory of "punctuated equilibrium" (PE) in the 1970s. In greatly simplified form, their argument can be stated thus: there is significant evidence for a relative stasis of phenotypic variation in clades over geological time. If most species in a clade are in stasis, then most evolutionary change in morphology is not occurring within species, but between species. If this is the case, then evolutionary trends must mostly be the result of sorting among species, and not simply the extension of within-species *anagenesis* (the gradual evolution of a species that continues to exist as an interbreeding population). This conclusion requires at least some degree of distinct hierarchical levels of change operating in the evolutionary process, and an emphasis on speciation that the Modern Synthesis of Neo-Darwinian evolution did not feature. Gould argues firmly for contingency in evolutionary processes, against any naturalisation of the notion of progress:

> [The] most fundamental question . . . [is] does the history of life have an intrinsic direction (toward greater morphological complexity, increased diversity, etc.).[32]

He emphatically denies the affirmation of anthropomorphically conceived progress in evolution: 'Progress is a noxious, culturally embedded, untestable, nonoperational, intractable idea that must be

replaced if we wish to understand the patterns of history'. Gould finds mentally liberating the metaphor of evolutionary 'bushes' rather than constraining 'ladders'.

> Humans are not the end result of predictable evolutionary progress, but rather a fortuitous cosmic afterthought, a tiny little twig on the enormously arborescent bush of life, which, if replanted from seed, would almost surely not grow this twig again, or perhaps any twig with any property that we would care to call "consciousness".[33]

In addition, models of progress in science are problematic, according to Gould, in that they tend to excoriate the past merely for being old and therefore primitive in the pejorative sense.

The theory of punctuated equilibrium is widely acknowledged to have played a creative role in moving evolutionary theory beyond the parameters of the Modern Synthesis, even if the theory has been challenged in many respects as insufficient, especially with regard to the causal basis of the punctuations and stasis that individuate species in geologic time. Yet Gould's scepticism toward the notion of progress has been influential. Peter Corning comments that 'the very notion of some overarching form of "progress" in evolution (in the normative sense) is now widely criticized by biologists. . . . A doleful Jacques Monod concluded: "Man knows at last that he is alone in the universe's unfeeling immensity, out of which he emerged only by chance".[34]

Bookchin challenges Gould's views, pointing out that the contingency Gould stressed can be seen as a necessary precondition for the variety and fecundity of life.[35] I argue that Bookchin's response to Gould's challenge quoted in the next section reveals a prescient insight into the co-implication of contingency and teleonomic necessity that I attempt to elaborate more explicitly next, and in subsequent chapters. Here, I will say, it is one thing to argue that necessity and contingency

operate in such a balanced way in natural selection so as to produce areas of rich species diversity such as the Burgess Shale. It is another thing to claim that underlying this evolutionary process is a 'tendency'—a teleological excess of necessity—understood as a directionality toward increasing 'complexity', however defined.

Rethinking Directionality

Corning acknowledges Gould's famous characterisation of natural evolution as a 'drunkard's walk' of ultimate contingency, noting that 'the high priest of this paradigm—also rather surprisingly—is the late Stephen Jay Gould'. Corning quotes Gould: 'Evolution follows the syncopated drumbeats of complex and contingent histories, shaped by the vagaries and uniqueness of time, place, and environment. Simple laws with predictable outcomes cannot fully describe the pageant and pathways of life'.[36]

Corning pushes back somewhat on this paradigm. He writes:

> I submit that the truth lies in the middle. Science and history need each other. Evolutionary history is not simply an expression of a clutch of deep "laws". Nor, at the opposite extreme, is it an aimless narrative—a disconnected series of entries in a cosmic Day Timer. The vision of a random, chaotic historical process is just as one-sided as is the image of an all-encompassing law, or laws of everything. . . . Evolutionary biology provides a preeminent example of a science that is grounded in history, but so are ecology, paleontology, geology, climatology, and cosmology, among others. The great twentieth-century evolutionary biologist Theodosius Dobzhansky pointed out many years ago that evolution via natural selection is really an "anti-chance" theory. It involves a cumulative historical process in which novelties of various kinds

> are converted into stable functional designs that persist over time. . . . In effect, evolution has been a cumulative learning process, and there have been innumerable "progressive" improvements over time in relation to the needs and functional capabilities of living organisms. . . . In short, a science of history must also account for the shaping influence of history itself, inclusive of natural selection.[37]

In supporting the general thrust of Corning's views, I add that the evolutionary 'shaping influences' are being increasingly understood in terms of a '4D' model of evolution that includes the symbolic dimension of human cultural evolution. Of course, as we shall explore later, the many issues raised by such views have to be examined philosophically as well. In a philosophical idiom explored by Catherine Malabou, what Corning is postulating, via the quote from Dobzhansky, can be stated as the 'becoming necessary of contingency'.

Corning highlights the need to focus on 'architectonics' beyond holism and reductionism, the joint effects produced by the *relationships* that arise between things or organisms (again, relationships that might more meaningfully be explored and expressed through dialectical concepts, I suggest). Nature is a vast structure of synergies. Humans are an integral part of a creative process, not a preordained script (or text) or score, but an 'unfinished symphony' of synergistic instruments; humans are, in the words of Teilhard de Chardin, 'evolution become conscious of itself'.[38] This last quote echoes Bookchin to some extent, though Bookchin was careful to comment, as previously noted, that humanity is *not yet* nature rendered self-conscious in a fully rational sense.

Crucially, however, I note that even Corning's more moderate views do not support a 'strong' teleological interpretation of Bookchin's directionality thesis of a progressive natural complexity leading to an objective basis for an ecological ethics. In fact, Bookchin at times distances himself from

the teleological implications of the idea of an overriding, overarching directionality in nature, and at other times claims that the ethics he advocates are indeed 'objective'. I do not believe that the strong version of this claim holds up, even in light of a summary exploration of recent science providing significant supporting evidence for the way in which Bookchin characterises nature and natural evolution in terms of spontaneity and self-organisation, unity-in-diversity, mutualism and cooperation, the active and creative role that organisms play in shaping their environments, and non-hierarchy in the strict social and anthropological sense of the term.

Biologists Richard Levins and Richard Lewontin have challenged the lack of any adequate metric to define notions of evolution towards increasing complexity. They ask,

> how are we to measure the complexity of an organism? In what sense is a mammal more complex than a bacterium? Mammals have many types of cells, tissues, and organ systems and in this respect are more complex, but bacteria can carry out many bio-synthetic reactions, such as the synthesis of certain amino acids, that have been lost during the evolution of the vertebrates, so in that sense bacteria are more complex.[39]

They note that while structurally more complex forms may have appeared later in the evolutionary sequence, they have not replaced the less complex forms but rather coexist with them.

Social ecologists can indeed point to considerable recent scientific research that supports the characterisation of nature and natural evolution in terms of the influence of teleonomy or purposiveness of organisms, for synergy, symbiosis, epigenesis, and behavioral and symbolic learning, and even Corning's 'cumulative learning processes' (a very dialectical concept), all of which can be seen to encourage the evolution of biological complexity in *specific ways*, at least for life on this planet.

However, the claim that a single, overarching *telos*—even one smuggled in as a *nisus* or tendency—guides evolutionary processes cannot be supported in either complexity theory or new views of evolution, even with our revised notion of matter.

These characteristics may serve as bases for reflection on aspects of nature that are well supported by current science, and these in turn may serve the choice of ethical formulations that resonate with them. They cannot, in my view, be seen as decisively conditioning an overriding directionality that provides any form of self-evident foundation for an objective system of ethics. Instead, they provide a ground for philosophical reflection on nature and ethics that would need to include a thoroughgoing philosophically argued ethical position that would minimally require perspectives from diverse and contingent lived experience in order to be considered an adequate ethics for our time, despite Bookchin's desire for an objective ethical foundation independent of human experience. Certainly we can introduce an 'ought' in relation to an 'is' in our thinking, but this ought cannot be *deduced* directly or seen as 'self-evident' from the 'is' of even the more recent scientific study of nature. The question in part involves the difficulties of simply exporting a model of scientific objectivity related to causal explanations in physics or biology to the social scientific or philosophical interpretation of human behaviour. To be fair, Bookchin's social ecology presents a somewhat more nuanced account of historical social and cultural development, without falling prey to a cultural relativism.

Too much historical and intellectual baggage is attached to teleological notions associated with ideas of progress, and too little scientific support exists for such claims. Indeed, the notion of progressive macroevolutionary trends has fallen under increasing disrepute in the years since Bookchin developed his theories.[40] As noted in chapter 2, Bookchin was partly influenced by the 'climax' models of evolutionary succession, associated with Charles Elton and others, popular during the time he was

writing. The emerging inter- or transdisciplinary field of historical ecology has decisively abandoned such notions. Historical ecologist Emily Southgate writes in opposition to

> [T]he implicit assumption that once freed of active human management, vegetation would develop along lines dictated by natural forces, trending toward the hypothetical climax composition; the past human element could essentially be ignored. In other words, there is a teleological tendency in nature that is unaltered and unalterable by human actions, assuming that climate is constant. This attitude continues to influence ecology in the United States. For example, the United States National Vegetation Classification system has distinct categories for "natural" and "cultural" vegetation, not acknowledging that historical, cultural activities may be critical for determining even the vegetation classified as "natural" and that there is abundant evidence that climate and other forcing factors do not remain stable long enough for extensive climax vegetation to develop.[41]

Social ecologists can argue for the scientifically supported principles touched on earlier in this chapter, without falling into either relativism, or on exaggerated claims, with all their covert authoritarian implications. *However appealing, Bookchin's directionality thesis of a progressive evolution as something that can simply be read from the fossil record, must be decisively rejected.* However, this need not mean abandoning or rejecting all of the claims about the relation between humanity and the non-human natural world, or claims about natural evolution. Humanity has indeed evolved through complex evolutionary processes, including what Jablonka and Lamb term the Symbolic Inheritance System, to evince the potentiality for ethical thinking, including a stewardship ethics, as discussed previously with reference to the deep ecology versus social ecology debate.

Nevertheless, we cannot say that this evolution is guided or directed by semi-teleological or necessitarian tendencies in nature.

Andy Price has argued effectively for the social ecology ethic of stewardship in relation to deep ecology. An updated scientifically informed social ecology can argue persuasively against an extreme constructionist view of nature that, in fact, there *are* important things we can and need to say about nature and natural evolution, without dismissing social constructionist insights about the pernicious naturalisation of concepts emerging from social hierarchy and domination that have informed both constructionist perspectives and social ecology theory as well. Glenn Albrecht observes that Bookchin's arguments depend on objective scientific evidence. However, the relation between theory and evidence in science is not straightforward, given the 'theory-laden' nature of scientific research that Edgar Morin highlights. Assessing the objective status of social ecology claims about the natural world, means also unpacking some of the meanings of objectivity.

Objectivity and Diversity

Critical theorists have sought to unmask the 'false ideologies' that obscure objective understanding and reify social forces. A critical perspective informed by this approach has been termed 'standpoint' theory. Sandra Harding and others have extended standpoint theory to feminist and post-colonial subjects.[42] Harding argues against the notion of a 'value-free' construction of objectivity, and claims that inclusion of the perspectives of those who have experienced various forms of oppression leads to 'strong objectivity', thus linking objectivity to social and cultural diversity, in her call for a 'science from below'.

However, Harding's consideration of issues of objectivity and diversity in science would be enriched by greater concrete consideration of the need for *institutional* and structural changes to how science is practised in dominant culture, as well as what Malabou suggests regarding the plastic

transformation of disciplinary boundaries among sciences and between sciences and 'the humanities'.[43] Harding's arguments provide support for the value of social and cultural diversity as well as ecosystem diversity, arguments that have not been adequately explicit in a positive sense within later social ecology writings, though present in Bookchin's earlier work. Social and cultural diversity provide both theoretical and practical value, as Harding argues in her support for indigenous knowledge systems as genuine 'science'.

Many of us want to look to science as an 'impartial' arbiter, and this role becomes acute in the instance of scientific evidence and arguments for the reality and severity of the effects of rapid, androgenic climate change. Supporting the importance of the integrity of current scientific methods requires acknowledging the ways in which these are always subject to contestation as part of the logic of the overall progress of scientific knowledge. Increasingly, there are pressures that make it difficult for scientists to remain aloof from public debates, given the urgency of scientific information in the context of climate change and of a global pandemic disproportionately affecting the poor and communities of color, and the dismissal of scientific expertise by a disturbingly large segment of the population, especially in the US.

Following Harding and standpoint theory, then, Bookchin's philosophy of nature can be considered as more, not less objective, to the extent that it is articulated from the perspective of the oppressed. As John Russon has observed in relation to Hegel's master-slave dialectic, the slave position tends towards 'epistemic pressures' toward accuracy in interpreting what the master demands, thus arguably moving toward a certain aspect of objectivity.[44] The increased presence of diverse voices in social ecology theory can augment its claims to objectivity in the strong sense identified by Harding.

Objectivity must also be seen as context-dependent; in other words, it has an historical dimension. Harding notes the post-WWII historical forces that led to the valorisation of a 'value-free'

science in the context of a reaction against Nazi and Stalinist scientific regimes. As noted, recent decades have seen a reliance on a 'managerial' notion of objectivity associated with quantification, along with a relativist scepticism of the possibility of any meaningful notion of objectivity. From a social ecology 'standpoint' informed by the writings of Hannah Arendt in *The Human Condition*, this may be related to the eclipse of the political realm and the realm of what Arendt terms 'work' as distinct from 'labour' or the 'mere' replication of biological life.[45] Both the political realm and the domain of work or craftsmanship bring concerns of objectivity to the fore, and the decline of both within neoliberal economy and culture in the US and Europe has resulted in reducing pressures toward objective ways of thought. Concerns of objectivity reemerge as we take up the challenge of thinking a broad ethics and philosophy of the political; defining objectivity is a political act, in the case of social ecology, an act grounded on philosophical arguments for the objectivity of potentiality.

However, the most important implications of this critical assessment of Bookchin's directionality thesis point to the need for a rethinking of necessity and contingency in both evolutionary research and in social ecology. As discussed in the next chapter, I argue that Malabou's work can be helpful towards this end; there, I examine questions of a new naturalism from a more philosophical perspective.

Notes to Chapter 4

1. See Martin Heidegger, 'Letter on Humanism', in David Farrell Krell, ed., *Basic Writings* (London: HarperCollins, 1977), 213-266.

2. Richard Wolin, ed., *The Heidegger Controversy: A Critical Reader* (London: MIT Press, 1993), 121.

3. Alasdair Macintyre, *After Virtue,* 2nd ed. (South Bend, IN: University of Notre Dame Press, 1981), 68; quoted in Albrecht, 'Ethics and Directionality in Nature', 97.

4. Andy Price, *Recovering Bookchin: Social Ecology and the Crises of Our Time.* (Porsgrunn: Norway, New Compass Press, 2012).

5. Robyn Eckersley, 'Divining Evolution and Respecting Evolution: The Ecological Ethics of Murray Bookchin', *Environmental Ethics,* 11, (1989), 109, quoted in Andy Price, *Recovering Bookchin,* 98.

6. Murray Bookchin, 'Thinking Ecologically', 14-15; quoted in Andy Price, *Recovering Bookchin,* 101.

7. Murray Bookchin, 'Thinking Ecologically', 17; quoted in Ibid., 100-101.

8. Murray Bookchin, *Remaking Society* (Montreal: Black Rose Books, 1989), 35; quoted in Andy Price, *Recovering Bookchin,* 105.

9. Andy Price, *Recovering Bookchin,* 105.

10. Robyn Eckersley, *Divining Evolution,* quoted in Ibid., 119-120.

11. Robyn Eckersley, *Divining Evolution,* quoted in Ibid., 118.

12. Murray Bookchin, *The Ecology of Freedom,* xxvi, quoted in Ibid., 127.

13. Andy Price, *Recovering Bookchin,* 127.

14. Glenn A. Albrecht, 'Ethics and Directionality in Nature', in Andrew Light, ed. *Social Ecology After Bookchin* (New York: Guildford Press, 1998), 92-113.

15. Murray Bookchin, *The Ecology of Freedom* (Palo Alto, CA: Cheshire Books, 1982), 365.

16. Ibid., 365.

17. Edgar Morin, 'Restricted Complexity/General Complexity', print manuscript from a presentation at the Colloquium 'Intelligence de la complexité: epistémologie et pragmatique', Cerisy-la-Salle, France, 26June, 2005, trans. from the French by Carlos Gershenson.

18. See Gerd B. Müller and Stuart A. Newman, eds., *Origination of Organismal Form: Beyond the Gene in Developmental and Evolutionary Biology* (Cambridge, MA: The MIT Press, 2003); and Stuart A. Newman, *Biological Physics of the Developing Embryo* (Cambridge, UK: Cambridge University Press, 2005).

19. Stuart A. Newman, 'Evolution: The Public's Problem and the Scientists', in *Capitalism Nature Socialism,* 19, no. 1, (2008), 101.

20. Eva Jablonka and Marion J. Lamb, *Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life,* Revised Ed. (Cambridge, MA: MIT Press, 2014).

21. James A. Shapiro, *Evolution: A View from the 21st Century* (Upper Saddle River, NJ: FT Press Science, 2011), 1.

22. Lynn Margulis, *Symbiotic Planet: A New Look at Evolution* (Amherst, MA: Basic Books, 1998), 37.

23. Peter Corning, *Nature's Magic: Synergy in Evolution and the Fate of Humankind* (Cambridge, UK: Cambridge University Press, 2003).

24. Catherine Malabou, *What Should We Do with Our Brain?* (New York: Fordham University Press, 2008), 13.

25. Eric D. Schneider and Dorian Sagan, *Into the Cool: Energy Flow, Thermodynamics, and Life* (Chicago: University of Chicago Press, 2005). Eric Schneider is an evolutionary ecologist, and Dorian Sagan is the son of Lynn Margulis and Carl Sagan.

26. Ibid., xiii.

27. Jeffrey Wicken, *Evolution, Thermodynamics, and Information: Extending the Darwinian Program* (Oxford, UK: Oxford University Press, 1987), 31. Quoted in Ibid., 158.

28. Ibid., 237.

29. Peter Corning, 'Review of 'Into the Cool', Institute for the Study of Complex Systems, 8 May, 2015, accessed 15 July, 2018 (www.complexsystems.org).

30. Corning, *Nature's Magic,* 130-131.

31. Stephen Jay Gould, *The Structure of Evolutionary Theory* (Cambridge, MA: Harvard University Press, 2002), 781-83.

32. Warren D. Allmon, Patricia H. Kelley, and Robert M. Ross, eds., *Stephen Jay Gould: Reflections on His View of Life* (Oxford, UK: Oxford University Press, 2009), 49.

33. Ibid., 50.

34. Corning, *Nature's Magic,* 289.

35. 'Stephen Jay Gould may luxuriate in the randomness—actually, the fecundity—of nature, and poststructuralists may try to dissolve both natural and social evolution into an aggregation of unrelated events, but directiveness of organic evolution unremittingly surfaces in even these rather chaotic collections of 'brute facts.' Like it or not, human beings, primates, mammals, vertebrates, and so forth back to the most elementary protozoans are a sequential presence in the fossil record itself, each emerging out of its preceding, if extinct, life-forms. As Gould asserts, the Burgess Shale of British Columbia attests to a large variety of fossils that cannot be classified into a unilinear 'chain of being'. But far from challenging the existence of directionality in evolution toward greater subjectivity, the Burgess Shale provides extraordinary evidence of the fecundity of nature. Nature's fecundity rests on the existence of chance, indeed variety, as a *precondition* for complexity in organisms and ecosystems (as my essay 'Freedom and Necessity in Nature' herein argues) and, by virtue of that fecundity, for the emergence of humanity from potentialities that involve increasing subjectivity', Murray Bookchin, 'Introduction', in *The Philosophy of Social Ecology,* 28-9.

36. Stephen Jay Gould, *Full House: The Spread of Excellence from Plato to Darwin* (New York: Harmony Books, 1996). Quoted in Allman *et al,* 289.

37. Corning, *Nature's Magic,* 289-90.

38. Ibid., 299.

39. Richard Levins and Richard Lewontin, *The Dialectical Biologist* (Cambridge, MA: Harvard University Press, 1985), 14-27. Bookchin in his later writings emphasised the more dynamic view that increased diversity leads to increased evolutionary pathways, rather than the association of ecosystem diversity with increased stability, a link critiqued by Levins and Lewontin.

40. See for example, Gene Hunt, 'The Relative Importance of Directional Change, Random Walks, and Stasis in the Evolution of Fossil Lineages'. Proceedings of the National Academy of Sciences, 20 November, 2007, accessed 23 January, 2020.

41. Emily W. B. (Russell) Southgate, *People and the Land through Time,* 2nd ed. (New Haven, CT, USA and London, UK: Yale University Press, 2019), 15.

42. See Sandra Harding, *The Science Question in Feminism* (Ithaca, NY: Cornell University Press, 1986); and *Objectivity and Diversity: Another Logic of Scientific Research* (Chicago: University of Chicago Press, 2015).

43. See Catherine Malabou. 'The Future of the Humanities', theory@buffalo, no. 14 (2010): 8-16.

44. John Russon, *Reading Hegel's Phenomenology* (Indianapolis: Indiana University Press, 2004), 82-87.

45. See Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1958).

Chapter 5: Naturalism in Question, Part 2

This chapter turns to the question of a philosophical evaluation—both ontological and epistemological—of Murray Bookchin's fundamental assertions about nature. Responding to what I have identified as a lacuna in social ecology regarding epistemological concerns, I briefly examine Anglo-American realist epistemologies, but ultimately argue that Malabou's reading of the Kantian Transcendental offers a more promising notion of a 'mobile' contact point for the claim that a rationality is inherent in nature, not simply imposed arbitrarily. Her reading suggests an explicit rethinking of necessity and contingency that could help us to evaluate Bookchin's directionality thesis in a way that avoids both the problematic aspects of a teleologically-guided process on the one hand, and a sheer randomness in nature that would fuel an ethical relativism on the other.

Glen Albrecht's comments on how Bookchin's project runs counter to the Humean, Kantian, and Moorian traditions in the structure and logic of the way that the question of a directionality is considered, thereby raises the issue of how such an argument, together with the scientific evidence cited, can be evaluated philosophically. In particular, this means drawing an 'ought' from (the investigation of) an 'is', thus violating Moore's 'naturalistic fallacy'. Can the issue be adequately resolved in such an empirical fashion as suggested by the focus of the preceding chapter? I argue that the question of the validity of Bookchin's reading of nature and natural evolution requires addressing a lacuna with regard to epistemology in his work, though certainly an epistemology intimately related to ontological concerns. How indeed do we know nature, and how do we know that we know? Again, the question asserts itself, how can we be sure we not merely interpreting scientific evidence in a way that supports our philosophical, ethical, and political biases?

As Albrecht presents the case, the scientifically informed arguments for and against directionality in nature pivot around a number of key issues, including the nature of matter, the status

of the postulate of an emergent principle of self-organisation within both living and non-living systems, the acceptance of the still-evolving conclusions of non-equilibrium thermodynamics, and the role of non-genetic factors in understandings of the processes of biological evolution. All these areas of theory and research continue to grow within complexity science as it develops within and among various scientific disciplines, and many of these areas have been taken up by philosophers as well. For now, I note that Bookchin stresses the first of these factors, the nature of matter as a developing, not merely moving or changing substance, whose most dynamic and creative attributes are its unceasing capacity of self-organisation into increasingly complex forms. Bookchin initially rejected all forms of systems theory, including the work of Prigogine, but seems indeed to have softened his initial scepticism in later years, perhaps because of pushback from some of his students, as such theories themselves evolved into less 'mechanistic' forms.[1]

Albrecht states that Bookchin argues for objective evidence independent of the observer, which situates his project within the general ontological framework of a scientific realism. This statement elides a host of philosophical problems briefly explored in the next section; we might provisionally clarify that Bookchin would certainly oppose a hyperconstructionist (and either radically idealist or logically incoherent) assertion that the objects of scientific knowledge do not *exist* independently of the observer. Despite his explicit rejection of the alleged 'epistemological turn' of Kant's philosophy, however, Bookchin does acknowledge the positive role of Kantian philosophy in the 'elaboration of an epistemology and the introduction of the subject as both observer and participant in cohering knowledge'.[2] The trajectory of this chapter will reinforce Malabou's demonstration that we are not yet done with Kant. First, however, with regard to the need for an 'elaboration of an epistemology', we must further critique the notion that Bookchin's philosophy of progressive evolution can be founded on a simple 'given' that can be read from the fossil record.

Anglo-American Efforts towards an Adequate Naturalist Epistemology

We may cite the Anglo-American philosopher Wilfred Sellars for his influential 'myth of the given', as a challenge to any attempt to ground a philosophy of nature on 'self-evident' observations of the fossil record or any other natural fact or feature. Wilfred Sellars's work builds on that of his father, Roy Wood Sellars.[3] Roy Wood Sellars offers epistemological positions that would be challenged by contemporary Kantian-oriented thinkers, such as the Humean assertion that space and time are 'built-up' through an accumulation of sensory experience. Wilfred Sellars moves much closer to a Kantian perspective on epistemological issues than does the elder Sellars.

Wilfred Sellars presents an admirably rigorous epistemology and philosophy, and his critique of the myth of the given offers an attack within the Anglo-American tradition on any form of foundationalism.[4] Though the detailed argument is patient and thorough, Sellars's master argument against the given can be schematically summarised as follows:

1. The doctrine of the given requires that for any empirical knowledge that *p*, some epistemically independent knowledge *g* is epistemically efficacious with respect to *p*.
2. For any *x* and *y*, *x* can be epistemically efficacious with respect to *y* only if *x* can serve as a reason for *y*.
3. For any *x* and *y*, *x* can serve as a reason for *y* only if *x* can serve as a premise in an argument for *y*.
4. For any *x*, *x* can serve as a premise in an argument only if *x* has propositional form.
5. Therefore, the nonpropositional is epistemically inefficacious.
6. Therefore, what is not propositional (e.g. material objects, sense data and other particulars, sensings and other events, universals) cannot serve as what is given.

7. All propositionally structured candidates for the given we will call *beliefs.*

8. No inferential belief of a subject is epistemically independent.

9. Any empirical, noninferential belief *x* of a subject *S* is justified for *S* only if (a) *x* is a reliable response to the empirical condition *x* reports and (b) *S* knows that *x* is a reliable report of that condition.

10. Therefore, no noninferential belief is epistemically independent.

11. All empirical beliefs are either inferential or noninferential.

12. Therefore, no empirical belief is epistemically independent.

13. Therefore nothing propositional can serve as what is given.

14. Therefore, nothing can be given.

Wilfred Sellars's argument against the notion of an epistemically independent given or empirical belief is an important contribution to any effort to form a naturalist epistemology adequate to the intellectual context of a 'postmodern' moment informed by critical theory standpoint approaches and contemporary continental philosophy.

Sellars moves toward Kant and thus towards a continental philosophy perspective in his appreciation of the Kantian distinction between sense intuitions and concepts of the understanding. Ultimately, however, he argues for the primacy of the scientific image in his synoptic vision, which unfortunately may limit the space for critique of what we may call scientific ideologies from a Marxist or other standpoint perspective. From a continental philosophy perspective, Heidegger's writings in *The Essence of Truth* and *The Origin of the Work of Art* challenge Sellars's reliance on the already opened and thus derivative standard of truth of the 'correctness of propositions'. Heidegger sees such a standard as neglecting the primordial essence of truth as the 'unconcealment of beings'. Experiencing beings in terms of a scientific image veils them in concepts that obscure the access to the Being of

beings that can be found by looking deeply at art or at mood. The philosophy of Wilfred Sellars could at least provide important elements of a naturalist epistemology, but the primacy of the scientific image would need to be relinquished by an encounter with continental philosophy, one which might result in the navigation of multiple images, rather than in the hegemony of one.

Roy Bhaskar, a Realist Theory of Science

The evolutionary naturalism and critical realism of Roy W. Sellars and Wilfred Sellars in service to science has largely been eclipsed by the critical realism associated with Roy Bhaskar. Bhaskar aims to build a philosophy of science that will enable its emancipatory potential. His work has greatly influenced social science and contemporary Marxism.

In his 1975 *A Realist Theory of Science*, Bhaskar seeks to develop a comprehensive alternative to the positivism that was seen at the time to continue to dominate the image of science.[6] Bhaskar's critical realism (CR) challenges the adequacy of the Humean theory of causal laws constructed by associations in the mind on the basis of the observation of regular or constant conjunctions of events. According to CR, not only is such a theory not a sufficient condition for a scientific law, but it is not even a necessary one. To demonstrate this, Bhaskar advances a transcendental argument from the nature of experimental activity.

A condition of the intelligibility of experimental science is that the experimenter is a causal agent of a sequence of (experimental) events, but not of the causal law that the sequence of events enables the experimenter to identify. This leads Bhaskar to affirm an ontological distinction between causal principles and patterns of events. In order to establish a law or principle, scientists require a theory, containing a putative cause or explanatory link to account for a sequence of events that is thus considered other than accidental; this implies a non-reductionist conception of theory. At the core of

theory is an image or conception of a natural mechanism or structure at work. These postulated mechanisms can come to be established as real under some conditions, thus providing the objective basis for ascriptions of natural necessity.

Only under the assumption of the real independence of the mechanisms from the events they generate are we able to justify the assumption that they will continue to operate outside of the closed experimental conditions that allow us to determine them empirically. In addition, it is only under such an assumption that the idea of the universality of a known law can be sustained, and experimental activity made intelligible. Thus, positivism not only depreciates theory, but it is also unable to account for the significance of (experimental) experience. It is only under the assumption that these mechanisms and structures prevail outside of the experimental context that we account as well for their applicability in open systems, where no constant conjunctions prevail. Thus, a constant conjunction of events cannot be necessary for the assumption of the efficacy of a scientific law.

This argument further shows the need for a distinction between real structures and mechanisms and the actual structure of events. The latter can be out of phase with the former, which is why experimentation is needed in the first place. In a similar way, the intelligibility of perception requires that we understand that events occur independently of experiences. Experiences are often out of phase with events, and can lead to misidentification. Because of the epistemic implications of this, scientists need education or training to access the empirical significance of experimental experience.

Bhaskar is thus led to identify three domains of the real: the domain of the empirical, consisting of experiences; the domain of the actual, consisting of events and experiences; and the domain of the real, consisting of mechanisms, events, and experiences. The real

basis of causal laws is the domain of the generative mechanisms of nature, the tendencies of which may or may not be manifest in any particular outcome or invariant pattern. Once we allow for open systems, laws can be interpreted in a non-empirical or transfactual way, independent of any particular sequence or pattern of events. We can then arrive at an ontological basis for a concept of natural necessity quite independent of human activity. Bhaskar contends that open systems are the rule, and closed systems are the rare and generally artificially generated exceptions.

CR operates from a philosophical position characterised as transcendental realism, differentiated from both an empirical realism and a transcendental idealism, both of which are seen to fall prey to the *epistemic fallacy,* in which statements about being are always transposed into statements about our knowledge of being. Bhaskar argues that the concept of the empirical world embodies a category mistake, which depends on a barely concealed philosophical anthropomorphism. This leads to a neglect of the question of the conditions under which experience is significant in science, especially the importance of antecedent social activity. The prevailing model in this case contains an 'implicit sociology' based on an epistemological individualism in which humans are seen as passive recipients of given facts and recorders of their given conjunctions. Against this view, Bhaskar argues that knowledge is a social product, realised by means of antecedent social products. The intransitive objects of knowledge produced in this way, however, exist and act independently of humanity.

Science is thus an ongoing social activity in a continuing process of transformation. Science is concerned essentially with possibilities, and only derivatively with actualities. Statements of scientific laws are best seen as tendency statements, tendencies that may be possessed unexercised, exercised unrealised, and realised undetected by humans. They may also be transformed. If generative mechanisms or structures are real, then the criterion for distinguishing between a necessary and an

accidental sequence is as follows: such a sequence is necessary if and only if there is a generative mechanism or structure that when stimulated by the initial event in the sequence produces a subsequent event in the sequence. We can thus have knowledge of natural necessity *a posteriori*, which accomplishes a kind of non-Kantian 'sublation' of empiricism and rationalism. Bhaskar summarises:

> [I]f science is to be possible the world must consist of enduring and transfactually active mechanisms; society must consist of an ensemble of powers irreducible to but present only in the intentional actions of men [sic]; and men must be causal agents capable of acting self-consciously on the world. They do so in an endeavour to express to themselves in thought the diverse and deeper structures that account in their complex manifold determinations for all the phenomena of our world.[7]

In his later work directed at a theory for social science in the form of TMSA ('Transformative Model of Social Action'), Bhaskar addresses issues related to the ontological depth of the social world, wherein emergent properties and causal structures are mediated by human agency. The duality of structure and agency involves both mediation of agency by structure and the reproduction and transformation of structure by agency. Dialectical critical realism emphasises non-identity and *absence* rather than the positive full presence of the Western metaphysical tradition. Instead of identity thinking, *entity relationism* is conceptualised. 'Whatever is' is intrinsically not itself; a fluid dialectical sense of identity allows us to see the ordinary notion of identity as an abstraction from geo- and socio-historical process, and also from the internal relationality of entities that initially appear separate and distinct. Bhaskar's critical realist dialectic here conceives of four dialectical moments: starting with the first moment of ordinary understanding leading to the second, a negative moment of critique encompassing

the desedimentation of the superstructures that both hide and reflect the economic and political interests of dominant forces in society, followed by a third moment of critical realist-informed social scientific mediation of this critique leading to a dialectical ethics, and, finally, resulting in a fourth moment of praxis.

Roy Bhaskar's project is an ambitious and influential one, and offers many useful resources for social theory in a plurality of contexts. We may draw on CR for a realist view of nature that aligns with scientific research and the discussion of nature in complexity theory, which also acknowledges the importance of and social embeddedness of theory. Unfortunately, there is a tendency within Bhaskar's critical and dialectic realism towards misreadings and tidy, schematic oversimplifications, as with his dismissal of the Kantian 'epistemic fallacy' and the Hegelian 'ontic fallacy'. With regard to the former, Guus Duindom has written a perceptive summary and critique.[8] We might further note that, for a number of years now, an effort has been made by a number of thinkers to accommodate deconstruction to realist discourse, an effort once described as 'sleeping with the enemy'.[9] The realist discourse in this instance is chiefly associated with the work of Bhaskar in his critical and dialectical realism.

Might critical realism as developed by Bhaskar offer a substantial contribution toward such an articulation? If so, it will still be subject to the deconstruction of its concepts, which of course never amounts to their simple negation. More promising to me is the work of Malabou, which suggests the possibility of grounding deconstruction not in the generally schematic 'realist' categories associated with Bhaskar, but in a new materialism that suggests a new naturalism as well. Before examining Malabou's study of Kant in some detail, I summarise this initial assessment of Bookchin's directionality thesis in the light of complexity science and realist epistemology by focusing more closely on the question of necessity and contingency, which implicates also the question of teleology versus evolutionary or historical randomness.

Between Necessity and Contingency

I now turn to the question of how rethinking necessity and contingency can help us rethink the core ethical concerns in Bookchin's directionality thesis. As presented in chapter 2, Bookchin's dialectical naturalism is based on the notion of a concept of matter as active and self-organising expressed in his interpretation of Diderot's notion of *sensibilité.* The development of organisms and eco-communities is seen to emerge according to a Hegelian dialectic naturalised in biological, ecological, and evolutionary terms. The directionality in natural evolution for which Bookchin argues must be held in tension with his emphasis on the unique capacities of humans—for example, the ways in which natural evolution has shaped our tendencies to intervene in natural processes and the potential stewardship role that humans can play in fostering the fecundity and diversity of life. Central to this directional pathway is the evolution of nervous systems, consciousness, subjectivity, choice, and the evolution of symbolic evolutionary systems—in short, the ability of humans to reflect on nature and make conscious choices according to considered values.

We can affirm that the considerable evidence supporting the development of epigenetic mechanisms extending beyond gene-based determinism in natural evolution supports a historical evolutionary narrative of a relative increase in freedom, as defined in the operational terms of a movement beyond 'mechanical causation'. However, can we say, for example, that an underlying *nisus* with its connotations of an overarching necessity has been a causal determinant in any way for the key moments of mammalian evolution, from its reptilian therapsid ancestors, to the proliferation of mammals subsequent to the Cretaceous-Paleogene extinction event, whatever the causes of this event? Is it credible that such an underlying or overarching tendency explains the many crucial developments in hominid evolution, such as bipedalism, encephalization, sexual dimorphism, and ulnar opposition?

I argue for rethinkimg necessity and contingency in relation to a philosophy of nature, in a way that extends even further than social ecology's efforts to undermine the conception of nature as a 'realm of necessity'. Necessity and contingency arise together in life, and mutually support each other. As cited previously, Bookchin saw this in relation to his comments on the Burgess Shale, in arguing that the immense diversity seen there has resulted from many contingent factors—that this diversity in fact demonstrates the fecundity of life, rather than the pure contingency argued by Gould. The mutual support of necessity and contingency in nature needs to be more explicitly considered in terms of Bookchin's directionality thesis, so that an acknowledgement of contingency does not equate with an ethical relativism. I argue further that Malabou can help us rethink the categories of necessity and contingency in relation to life.

Catherine Malabou's (Deconstructive) New Materialism

More recently, at least in Continental philosophy, a new effort is being made to engage with epistemological and ontological questions in relation to the material and natural world under the banner of a 'new materialism' articulated by a number of thinkers, notably Catherine Malabou. The new materialism has been situated in the context of the decline of historical materialist, existential, and phenomenological approaches, as Anglophone analytical and continental poststructural and social constructivist approaches have problematised more straightforward approaches to matter and material existence as naively representational and naturalistic. Although these constructivist approaches have been useful in clarifying arguments and raising awareness of the way power is involved in any attempt to portray material reality, they have also encouraged a neglect of new approaches toward material reality and processes that have important political implications. Malabou's new materialism, I argue, implies a critique of the limitations of constructionist discourses of nature.

Beginning in the 1990s, theorists such as Jane Bennett, William Connolly, Elizabeth Grosz, Sara Ahmed, and Rosi Braidotti have articulated various new materialisms arising together with non-reductionist understandings of matter developed in systems theory, chaos theory, and complexity theory, biology and ecology. These new understandings of matter are transforming disciplinary boundaries. Malabou has called for engaging deconstruction with a new materialism, developed in her case through a focus on Heidegger, Hegel, and Derrida.[10] Murray Bookchin would not have endorsed the neo-vitalism, the diffusion of the concept of agency, and the posthumanism of new materialist discourses in general. Malabou's work however, may offer sophisticated and important theoretical resources to social ecology, more congenial partly because of her initial focus on Hegel, a focus I pursue in the following chapter concerning the nature and status of the dialectic.

Malabou explores questions of nature and freedom in *Before Tomorrow,* in which she examines the writings of Kant, a philosopher whose 'epistemological turn' Bookchin lamented. Malabou's reading of Kant within the perspectives of subsequent critiques opens a space for speculative thought within biology, and offers indirect support for the general direction of Bookchin's thesis even within Kantian philosophy regarding a view of nature as a potential ground for an ecological ethics.

Malabou's Productive Reading of Kant: The Transcendental Changes

Malabou's reading of Kant centres on the figure of what he terms 'an epigenesis of pure reason,' introduced in the second edition of the *Critique of Pure Reason,* published in 1787. Much of Kant's concern in the second edition is to counter criticisms of the 'subjectivity' of his theory of knowledge following the publication of the first edition in 1781. No doubt Kant was concerned in the *Prolegomena,* the *Metaphysical Foundations of Natural Science,* and in the revised edition of his first Critique to rebut the claim of the Feder-Garve review that his *Critique of Pure Reason* articulated a

version of subjective idealism along the lines of Berkeley. However, as scholars such as Paul Abela[21] and Michael Friedman[22] abundantly demonstrate, Kant maintains a long-standing interest and orientation towards objective forms of knowledge, from his earliest scientific treatises to the investigation and partial revision of the status of chemistry as a science in the *Opus postumum.*

By introducing the concept of an epigenesis of pure reason in the second edition of the *Critique of Pure Reason,* Kant is concerned with elucidating his arguments for both the objectivity and the stability of our knowledge of the natural world. In *The Metaphysical Foundations of Natural Science* Kant includes a note in which he mentions a review in which a 'Professor Ulrich' expresses doubts about the basis of the Transcendental Deduction. Kant acknowledges the legitimacy of these doubts and attempts to provide a further answer in the second edition to the question of the legitimation of the *a priori* agreement between the categories and the objects of experience. The epigenesis analogy allows Kant to explain that the categories are truly the *a priori* form of appearances, and to adequately represent their objective reference, which can only come from a generative production—the spontaneity of the understanding. Kant writes,

> [T]here are only two ways in which a necessary harmony of experience with the conceptions of its objects can be cogitated. Either experience makes these conceptions possible, or the conceptions make experience possible. The former of these statements will not hold good with respect to the categories (nor in regard to pure sensuous intuition), for they are *a priori* conceptions, and therefore independent of experience. The assertion of an empirical origin would attribute to them a sort of *generatio equivoca.* Consequently, nothing remains but to adopt the second alternative (which presents us with a system, as it were, of the *Epigenesis* of

pure reason), namely, that on the part of the understanding the categories do contain the grounds of the possibility of all experience.[23]

The relation of the concepts of the understanding to objects of experience must thus be neither innate nor empirically constructed. In the former case, the categories 'entirely lose that character of *necessity* which is essentially involved in the very conception of them'. The latter case corresponds analogically to the biological theory of 'equivocal generation' (*generatio equivoca),* already largely discredited in Kant's day, in which the *a priori* categories would miraculously appear out of an inorganic origin, an idea that 'contradicts the very idea of generation', as Malabou notes. As she further notes, the concept of epigenesis allows Kant to ally the architectural foundational solidity and coherence of an 'architectonic of pure reason' with the intrinsic solidarity of a growing organism, as in embryonic development.

In a process of increasing conceptual complexity, Malabou further follows the morphological development of the motif of epigenesis from its textual embryo in 27 of the *Critique of Pure Reason* to its other occurrences in Kant's work. She examines previous attempts to defend the *a priori* 'purity' of the transcendental which assert a 'minimal preformationism', as well as opposing attempts that react against the 'theological' implications of preformationism by arguing for a 'biologisation' of the transcendental along the lines of a neo-evolutionism or mental Darwinism, attempts that argue for an adjustment of the categories to objects through an adaptive process. She concludes that both positions undermine Kant's critical position and deprive the transcendental from ownership of epigenesis. She then asks if in referring to 'a system of the epigenesis of pure reason' Kant was concerned less with the objective process of engendering the relation between categories and objects and more about the way in which the subject appropriates the generating power of the understanding and becomes its subject.[24]

Epigenesis would thus foreground a figure of textual hermeneutics or musical interpretation. If the origin of epigenesis is inaccessible, it also frees up a facticity and a movement of becoming at the intersection of the epigenesis of the subject of cognition, the practical autonomy of the subject, and the creativity of life, as explored in Kant's three Critiques. Malabou writes, 'Epigenesis is thus the origin born of the lack of origin, the lack of meaning of the origin, the spontaneity of its silence'.[25]

The specificity of a living being requires an originary limitation of its structures, analogous to an originary genetic code, or to a text prior to interpretative practises. From this inaccessible source epigenetic development moves beyond divine predestination on the one hand, while also defining a space of meaning that is resistant to its biologisation on the other. Epigenesis thus proceeds from a gap between an unknowable originary organisation and self organisation, according to a temporal order that is oriented but not determined. This is the space of a writing that is previously oriented but not programmed, and a history that 'exists precisely because history is not given'.

Malabou's interpretive trajectory in *Before Tomorrow* follows the rhythm of epigenetic growth, moving from specific readings that question the foundational stability of the transcendental to general interpretations, mapping out a reception of Kant within current philosophical trends. Her study is guided by three questions: the question of the philosophical status of temporality, which seems to have disappeared as the leading question of philosophy after Heidegger; the question of whether an 'impassable abyss' can be maintained between the logical and biological origin of thinking, given recent neurobiological discoveries; and the question of the status of Kant as the guarantor of the identity of continental philosophy, and whether it is now necessary to 'relinquish' the transcendental. In particular she analyses the 'speculative realism' of Quentin Meillasoux,[26] who claims that *a priori* synthesis—or what he terms 'correlation'—cannot in the last instance legitimate the universality and the necessity of the laws of nature on the basis of the laws of the understanding.

A Critique of Speculative Realism

In *After Finitude*, Meillasoux argues against the 'correlationist', who starts from a relation-to-the-world in the present and then makes projections to the past or to the future. No concept of time can be authentic, according to Meillasoux, in a philosophy such as that of Kant and Heidegger, that starts from synthesis and retrojects the past based on the present. The discourses of genealogy and deconstruction could not establish that a truly post-critical philosophy could do so, because they were also versions of correlationism. The correlationist fails to consider a past prior to synthesis, prior to the relation, that is indifferent to life and to being thought. For Meillasoux, it is the principle of the agreement that is problematic. It is never possible to justify the agreement other than factually. The agreement is observed and described; it cannot be deduced. Whether the transcendental is transformable or not, it is contingent, though not in the way that Hume and other sceptics thought, for both Hume and Kant assumed causal necessity, though accounting for it in different ways. Meillasoux wants to think an absolute contingency, meaning that there is no reason for anything to be the way it is, that the laws of nature could change for no cause or reason whatsoever. Even the category of chance, with its associated notion of probability, is not contingent enough to unsettle the categories of the possible and the necessary. Meillasoux takes the problem beyond Kant and Hume to the mathematical notion of the 'transfinite', based on the mathematical impossibility of totalising possibilities under the name of the infinite. This form of radical contingency cannot give rise to any positive knowledge of the possible, conceived as a totality of conditions, as with the Kantian transcendental. Relinquishing the transcendental for Meillasoux's speculative realism involves a more radical move than does the argument for its biological malleability, as with an evolutionary 'mental Darwinist' approach, or for its historical becoming, as with Foucault's approach. Speculative realism attempts to move beyond even

Heidegger's 'destruction of metaphysics'. We must think a world utterly foreign to experience, to our experience.

Malabou responds to the question of relinquishing the transcendental by putting Meillasoux, Heidegger, and the neurobiologists in conversation. For Heidegger, Meillasoux's references to dating systems referring to the facts of events prior to the advent of life would mean assuming a domain of knowledge already opened, without considering the ontological question of the *opening*. Thought in this domain would thus lack both origin and originality. In addition, Heidegger would have pointed out the error of confusing *articulation*—the neutral synthesis that holds together the difference and juncture of the before and after, without relation to a psyche—and *correlation*, the synthesis of subjectivity and time, two syntheses that are linked but not reducible to each other. Malabou comments, 'What the play of their engagement reveals is that time is not intrinsically mathematical'. Heidegger discusses four dimensions of time in *Time and Being;* its fourth dimension is the articulation that holds its moments originally united and 'holds them apart thus opened and so holds them toward one another in the nearness by which the three dimensions [of time] remain near one another'. This idea of the proximity of the moments of time derives from Kant, and depicts the type of organised unity referred to by epigenesis.

Malabou finds Meillasoux's attempt to prove the contingency of the world unconvincing. Against the transcendental solution to the stability of the world, Meillasoux refuses to adopt a theory of chaos. He argues:

> The only necessary proper to chaos is that it remain chaos, and hence that there be nothing capable of resisting it—that *what is* always remain contingent, and that *what is* never be necessary. However—and here we come to the crux of the matter—our conviction is that in

> order for an entity to be contingent and un-necessary in this way, *it cannot be anything whatsoever*. . . . [I]n order to be contingent and un-necessary, the entity must conform to *certain determinate conditions,* which can then be construed as *so many absolute proprieties of what is.*[27]

This refusal of chaos leads to the division between the rational authenticity of unreason, and the vulgarity of anything whatsoever, a division that ultimately saves 'the order and the proper of the world', reducing radical contingency to the merely thinkable or mathematically possible. There is no 'after' to finitude that provides a genuine alterity.

Heidegger's Abandonment of the Question of Time

Further, Malabou examines the earlier relinquishing of the transcendental in Heidegger. The meaning of the Turning (Kehre) is that Heidegger questions the 'connectionist' perspective in his own way. *Being and Time,* he came to feel, runs the risk of anthropologising the question of being because it is based on the connection of Dasein and time. However, Heidegger's later thinking of a still more primordial 'givenness' did not bring to light a renewed concept of time, nor did it result in a post-metaphysical unity between the ideality and naturality of time; in fact it never moved beyond the difference between the authentic and the inauthentic.

A critique of neurobiological reason

As a third 'dead end' of the attempt to relinquish the transcendental, Malabou critiques neurobiological reason. She acknowledges that we can argue a 'far more convincing' idea of progressive change and transformation of the laws of nature based on an empirical derivation of the *a*

priori than can be found in Meillasoux's arguments for an absolute contingency, an absolute contingency that cannot be verified *in* nature. In contrast to Meillasoux's occurrence-based notion of contingency, stabilised neuronal connections can be destabilised and reorganized and remodelled, resulting in a gradual and non occurrence-based contingency. In addition, Neurobiological approaches allow a systematic economy that extends beyond the distinction between 'authentic' and 'vulgar' time. Time evolves through the process of rememoration from a somatic and postural given to the time of thought. However, this neurobiological approach lacks critical concepts:

> What the neurobiological perspective lacks fundamentally is the theoretically accounting for the new type of reflexivity that it enables and in which all of its philosophical interest lies. Again, the problem is not so much, as is too often assumed, the reduction of the cultural to the biological, but rather the relation of the neuronal subject to itself, the way in which it sees itself, perceives itself, or is auto-affected—a problem that has never been considered on its own count. Critique, understood here as thinking the brain, is still necessary.[28]

The *Critique of Practical Reason* illuminates the engendering point of epigenesis for the objective reference of practical causality. Kant argues that Hume renders the objective reality of causality theoretically null and thus useless for practical—moral and ethical—applications. There is thus an equality between speculative and practical reason in the epigenetic source of the objective validity of the categories. This epigenetic link between speculative and practical reason opens a space within Kant's philosophy for Bookchin's notion of an 'ought' within the movement of natural evolution, though his speculative presumptions may not have been approved by Kant. They would likely have been allowed by Hegel, and of course Bookchin was right to have based his philosophy on a

naturalistic reading of Hegel; what the opening of a space *even within Kant* through a close and rigorous reading of his texts does accomplish, however, is the overcoming of an extensive nexus of scepticism decidedly not overcome by the historical transformations of Kantianism.

An Epigenetic Paradigm of Rationality

Malabou calls for an epigenetic paradigm of rationality negotiated with, rather than against Kant.[29] She argues that epigenetic development occurs upon the contact between the categories and experience, and is a 'surface structure' rather than the 'improbable base' that commentators have sought. The contact point of epigenetic development is a moving one between a retrospective present and a future in the making, restoring the question of a temporality distinct from the progression from a past towards a present that characterises the notion of the *a priori* as genesis. This concept of epigenesis becomes more complex through the process of the self-differentiation of reason itself, as Kant considers creativity and life in the third Critique. Art and organisms in nature, examined in the *Critique of Judgment,* introduce the question of a facticity that presents itself as self-organised, independent of thought yet soliciting thought to the highest degree.

Previous commentators have asserted the instability of the transcendental because they have sought a genesis from an always more originary and authoritative source; thus, the transcendental *a priori* vacillates between preformation—an understanding more compatible with the mechanical causality treated in the first critique—and a view of the transcendental that would allow for the role of experience in shaping evolutionary adaptations more compatible with the discoveries of neuroscience. Those critics who have stressed too much the role of experience in the development of the categories have been led to an understanding of these as innate or preformed; those who minimise the role of the innate predispositions discussed by Kant have tended to give too much latitude to experience.

However, if the transcendental occurs as an epigenetic development *at the contact point* between the categories and experience, then the transcendental acquires a mobility that displaces the contentious issues surrounding a presumed static originary and genitive foundation.

Temporal Mobility and the Question of Time

Further, the temporal mobility of this epigenetic contact point between a retrospective present and a formation of a future dissolves the opposition between a primordial time announced by Heidegger, and a natural time subject to archaeological dating systems; they occur at one and the same time. The meeting point as the place of interpretation signifies a meaning of the past as not simply an anthropomorphic projection but as a reading of traces of life, what Malabou terms an *architrace.*

Before Tomorrow thus brings Malabou's deconstruction of Heidegger's temporality to a decisive point. In *The Future of Hegel,* she contests Heidegger's claim that Hegel's philosophy only looks backward, based on a 'vulgar' notion of time, by showing how Hegel's concept of a plastic relation between the subject and his accidents can be seen as a structure of anticipation. Malabou then explores how time has disappeared from Continental philosophy, and she researches the significance of a neurobiological concept of time in *What Should We Do Our Brain?*. In *Before Tomorrow,* Malabou writes:

> It is impossible to separate epigenetic temporality from the biological process it refers to, from organic growth, from the future of the living being. However, insofar as its movement is *also* the movement of the reason that thinks it, insofar as there is no rationality without epigenesis, without self-adjustment, without the modification of the old by the new, the natural and objective time of epigenesis may also be considered to be the subjective and pure time of the

> horizon by and for thought. In this way, there would no longer be a difference between primordial temporality and objective temporality. . . . Between an authentic temporality without maturation and a chronological vulgarity without ecstasy, epigenetic temporality unfolds at its own rhythm. Henceforth, all it asks is to be conceptualized.[30]

However, if natural and objective time meets at one and the same time as primordial time, then the epigenetic reading of the Kantian Transcendental links with life and materiality. Further, this new materialist understanding would also apply to Husserl's platonic concept of mathematical and logical concepts. 'Certainly there are objects that exist only in thought', writes Malabou, but these do not inhabit a separate ideal realm outside of time. Time (or space-time) as understood in relativity science, is part of matter, which can bend it. Further, this new materialist perspective would undermine an idealist reading of the Messianic time of Levinas or Derrida. In addition, such a perspective opens to the Marxist analysis of the reification of 'universal' time as the abstract time of time measurement, as well as the ideological use of time in terms of 'time and motion' studies. Time may thus be a more effective dimension with which to challenge ideality than the real, whether Lacanian, critical, or speculative.[31]

Bookchin and Malabou

Certainly, Malabou's epigenetic paradigm of rationality encourages an increased philosophical engagement with recent biological science, and other scientific explorations into complexity. However, in the risk of her philosophical journey, she transforms horizons of thought. Bookchin in his Hegelian approach wishes to bypass the narrowing of philosophy into epistemological interpretations of science interpreted along the lines of a reductive empiricism, or of epistemological determinations based on the

rigid concepts of the understanding. In failing to engage more directly with these questions, however, he limits the contemporary resonance and transformative potential of his thought.

In Malabou's account of Kant's own journey, the movement from the examination of mechanical causality in the first critique to a teleological or teleonomic causality that can account for life and creativity in the third critique is nothing other than the epigenetic development of rationality itself. Beyond the constitution of objects by the form of the concepts of the understanding, reason encounters in art, natural beauty, and life a rationality that appears to be able to do without reason, that appears indifferent to being judged, that makes meaning independently and for itself as an end. In Hegel's phrase (in relation to the Philosophy of Nature), 'thought becomes redundant'. The awareness of an organised being in nature forces reason to identify a purposeful nature as a regulative concept for the reflecting power of judgement. Self-organising beings whose parts form a whole do not develop according to a law of the mind; they are self-sufficient in their specificity.

The increasing complexity of purposefulness calls upon the epigenetic development of the category of causality towards the recognition of another kind of lawfulness in nature, *another principle of causality.* This kind of necessity has no opposite: its denial does not contradict the stability of the laws of nature as previously understood. Yet it modifies the transcendental to accommodate a necessity defined as *transcendental contingency.* As Malabou puts it, the unique rationality of life is one in which 'meaning is given without us, in the chance alliance of nature and freedom'.

Malabou transforms the categories of necessity and contingency in a way that deconstructs the opposition between an overarching metaphysical teleological principle of necessity and a pure contingency, as conceived by Meillasoux and, to a certain extent, by Gould as well. The result is what Malabou talks about as the way in which brain plasticity confers a margin of improvisation with regard to genetic determinism: 'Today it is no longer chance versus necessity, but chance, necessity, and

plasticity—which is neither the one nor the other'. Though she does not use the term plasticity in *Before Tomorrow,* Malabou's reading of Kant extends the capacities of giving, receiving, and annulling form to all of life.

The importance of Malabou's study of Kant for Bookchin's social ecology, I assert, is that it reinfuses the dimension of the aleatory, essential for an epigenetic understanding of life and an epigenetic model of rationality, back to a philosophical naturalism in danger of listing too much in the direction of a steep 'slope' of necessity, especially with what we are calling social ecology's directionality thesis. This 'transcendental contingency' occurs in the self-organising activity of organisms as they form a whole, in the '*chance* alliance of nature and freedom' [emphasis added]. This transcendental contingency names a rationality not merely projected randomly onto nature but developing self-sufficiently as a principle of epigenetic freedom from the genetic. An epigenetic rationality forms at the surface point of contact of mind and world, as concepts are led to transform themselves to accommodate new recognitions, fresh categorical metamorphoses. The epigenetic model of rationality inspired by Malabou's study of Kant encourages the recognition of the need for core social ecology concepts to be open themselves to self-transformation. As we proceed in the next chapter to bring together epigenesis and the dialectic, we will see that the way in which these concepts transform is shown by the need to remain even closer to the Hegelian speculative concept, in which the dialectic waits on experience, rather than imposing the still relatively rigid standpoint of the Kantian understanding. Malabou can be of help here too, in her (earlier) study of Hegel in *The Future of Hegel.* Bringing to light the movement of the speculative proposition and of Absolute Knowledge in Hegel has important ethical and political implications as well.

Meaning and rationality are inherent in and not simply projected onto nature, a fact that overcomes not only a radical nature constructionist view but a nihilism associated with Nietzsche, and

evident in Sartre. Both Heidegger and Bookchin sought to overcome this perceived nihilism; Heidegger as noted in ways that led to conservative and highly reactionary political implications, and Bookchin in a radical and revolutionary left political project. The evolution and plasticity of the human brain facilitates an agency obscured by both biocentric, deep ecology perspectives and a Messianic waiting, yet possesses in its epigenetic articulation with all of life, an agency beyond the pure voluntarism of an 'ethics of the built world' as offered by Steven Vogel.

Malabou supports what might seem a reading that transgresses the 'merely regulative' status of the reflecting power of teleological judgement by quoting Kant's distinction between the 'technical unity' of a schema arising empirically and a schema that arises directly from an idea:

> For its execution the idea needs a *schema,* i.e., an essential manifoldness and order of the parts determined *a priori* from the principle of the end. A schema that is not outlined in accordance with an idea, i.e. from the chief end of reason, but empirically, in accordance with aims occurring contingently yields *technical* unity, but that which arises only in consequence of an idea (where reason provides the ends *a priori* and does not await them empirically) grounds *architectonic* unity.[32]

She comments that epigenesis occurring as a sensible presentation of a concept of the transcendental arises in consequence of the concept as most apt to illustrate it; it is not a mere subjective creation or technical invention. 'Hence', she writes, 'the epigenesis analogy is *constitutive,* the illustrated expression of the concept that springs up spontaneously from the concept'. The analogy restores time to the transformation of the *a priori,* and is an ontological and not merely epistemological movement.

Additionally, Malabou embodies in the trajectory of her argument from specific readings to larger conditions of contemporary thought a postulate of the 'existence of an epigenetic mode of transmission and heritage of philosophy' among the interpretive dialogues presented. She calls for a new thought of finitude, seen not as the exhausted remnant of the transcendental associated with Kant or the existential finitude explored by Heidegger, but as a finitude of the living being in which meaning arises because it is not pre-coded. The specific mobility of the transcendental allows a contact point, an articulation between nature and freedom, brain and meaning, across the bridge of their encounter in purposiveness. This mobility provides a flexible but resilient foundation or ground, one that 'sways in the wind' as it were, and provides a way forward for the thought of nature and freedom in the context of Continental philosophy:

> It is true that it was time to speak out against the contemporary impoverishment of philosophy, condemned for so long to poetic-messianic waiting, ignoring the most serious scientific revolutions of our time. But, as I have sought to demonstrate, the positivist or reductionist temptation is none other than the flip side of the same failure.[33]

This articulation of brain and meaning, nature and freedom across the contact point of an epigenetic rationality allows a way forward past a long history of scepticism, between a reductionist scientism on one hand and on the other, a reductionist understanding of Kant's transcendental and messianic deconstructive approaches that nullify any possibility of thinking dialectical development informed by biological evolution, as something other than the saving of the same. The epigenetic mode of transmission of the heritage of Kant, in terms of his very intentional concept of epigenesis, is able to be assimilated more easily today with the growth of scientific epigenetics. In a similar way, the gaps

and lacunae in Bookchin, especially with regard to epistemology, provide an opening for other thought, including the thought of Malabou, which has the philosophical resources to help relaunch his project. It is not a matter of ignoring science and science-supporting epistemological investigations in favour of a philosophy that would hold the place of a hegemonic or hierarchical vocation; as Malabou, insists with regard to Continental philosophy, we must no longer avoid the most serious scientific revolutions of our time.

Malabou's plastic reading of Kant suggests a *plastic* reading of Bookchin's philosophy of social ecology, one able to respond to the ethical dilemmas sketched in the contextualising discussion at the start of the previous chapter. The assertion of a rationality evident in the teleonomy of organisms in nature affirms an ethical basis beyond mere willed human projections onto the natural world, as with the alleged nihilism of Nietzsche, or with a strict social constructionist approach. At the same time, the articulation of a different kind of causality and a new notion of contingency inseparable from epigenetic growth permits an interpretation of Bookchin's directionality thesis that moves beyond the opposition of a pure contingency as conceived by Gould and Meillasoux to teleological progress, an opposition that obscures any consideration of the 'chance alliance of nature and freedom'. The epigenetic model of rationality that Malabou proposes retains an appreciation of purposiveness in terms of organisms in nature across the mobile contact point of the transcendental without resorting to teleological justification according to an underground authoritative "code", with all of its authoritarian implications that would contradict the chance alliance with freedom. In emphasising rationality, this model suggests a *rational* basis for ethics, one Bookchin admires in Kant. Bookchin admires Kantian categorical ethics partly in terms of its associations with the democratic project of a *general interest*, to be examined later, though I argue that such universalistic and individualistic ethical formulations need to be more explicitly transformed through a 'creolized' reading of Hegelian ethics, one that would also

respond to Alastair Macintyre's concerns with the inadequacies of the Enlightenment legacy of individualistic rights.

Here, I underscore the importance of a rational basis for ethics in relation to the tragic consequences of the ethical failures of Heidegger and other 'conservative revolutionaries' of the period of National Socialism in Germany. Malabou's deconstruction of Heideggerian temporality offers a means for deconstructing his thought in relation to the hypostatisation of 'authenticity' and the correlative denegation of the inauthentic, which all too easily slips into a denegation of the *they* from which might emerge a broader democratic general will. In addition, the way in which she articulates a convergence not only between authentic time and natural time, but also between philosophical and scientific discourse concerning epigeneity, serves to strengthen the potential of a scientifically informed philosophical project toward a rational model of ethics. Social ecologists would add that the capacity for increasing reflexivity in the epigenetic development of human rationality, a capacity underlying the potential for the development of an ethics and a politics, has endowed humanity through the evolutionary process with the question not *whether* to intervene in nature, as with the biocentric perspectives of deep ecology, but *how* to intervene in a way that fosters ecological and human diversity and well-being.

The convergent play across the epigenetic contact point of this notion of the transcendental presented by Malabou dissolves the sharp conflict between Kant and Hegel and offers well articulated ontological and epistemological resources for Bookchin's philosophy of nature. The way forward for Continental philosophy as envisioned by Malabou frees us from the spell of the definitive origin and the authoritative code, yet retains the articulation of nature and the potentiality of freedom. There is a ground of rationality in nature, though we need not seek for an 'underground' authoritative and genitive origin and source, especially given the authoritarian implications of a certain kind of 'arguing from

nature from the perspective of various 'epistemologies of rule', borrowing Bookchin's phrase. The mobile ground of an epigenetic model for rationality as argued by Malabou offers both stability for reason and the conditions for its continued growth: she asserts that in Kantian philosophy the transcendental "*is that which ensures both the stability and the transformability of the whole".*[34]

Between scientism and the deconstruction, it becomes possible to say something about nature with a carefulness sharpened by social constructionist perspectives, yet also with a confidence born of this convergence of complex science and the epistemological mobility of epigenesis. According to the convergent schema introduced by Malabou, we may say that meaning and agency, as well as an epigenetic rationality, develop in the struggle of consciousness against the biological matrix of the brain, and a dialectical development occurs in the ongoing struggle between the self-maintenance of a particular form and the self-overcoming of that form necessary for growth. Bookchin frequently employs this characterisation of overcoming immediate forms to illustrate dialectical development, though he lacked both the neurobiological and theoretical conceptual resources to argue this development with sufficient complexity and sophistication. Critically, he lacks a sufficient appreciation of what Malabou identifies as the *necessity of contingency* in epigenetic development. Such an appreciation, emerging from both biological epigenesis and an epigenetic paradigm of rationality, underscores the importance of a deconstructive approach in elaborating contingency, difference, and alterity—in relation to freedom, an approach that would preserve freedom against the alliance of identitarian thinking and teleological justification.

Bookchin sees Kant as a long sceptical detour from a dialectical naturalism that could only be reconstructed from an ecologised Hegelian dialectical approach, a dialectic rescued even from its role in 'correcting' Kantianism. Nonetheless, he might have appreciated Malabou's reading of Kant, with its argument for a mobile, 'surface ground' for a rationality *in* nature, as well as a rationality growing

epigenetically. The epigenetic unfolding occurs in the place of a dual objectivity that no longer concerns simply the objects of nature ruled by a mechanistic determinism, but also organised beings. However, this is also the place not merely for a transcendental and an empirical subjectivity, but for a living subjectivity as well. What resources might an epigenetic dialectic offer for overcoming dualism? How might the dialectic move thought from the 'is' to the 'ought', an ought which is not that of the 'infinite striving of an abstract *sollen'* criticised by Hegel, but an ought that could be understood dialectically and actualised incrementally? Such an imperative is crucial to the social ecology project for holding the contingency and complexity of these living parts together, through a process that, borrowing from Malabou, we can think of as a process of the embryogenesis of reason itself.

Notes to Chapter 5

1. Based on conversations with social ecology students.

2. Murray Bookchin, *The Philosophy of Social Ecology: Essays on Dialectical Naturalism* (Montreal: Black Rose Books, 1996), 55.

3. See Roy Wood Sellars, *Evolutionary Naturalism* (Chicago: The Open Court Publishing Company), 1922.

4. See James R. O'Shea, *Wilfred Sellars: Naturalism with a Normative Turn* (Cambridge: Polity Press, 2007); and Willem A. deVries and Timm Triplett, *Knowledge, Mind, and the Given: Reading Wilfrid Sellar's "Empiricism and the Philosophy of Mind"* (Cambridge: Hackett Publishing Co., Inc., 2000), 104-05.

5. See Christopher Norris, 'Deconstructing anti-realism: Derrida's "White Mythology"', in Joseph and Roberts, eds., *Realism Discourse and Deconstruction* (London: Routledge, 2004), 262-92.

6. Roy Bhaskar, *A Realist Theory of Science.* (London: Routledge, 2008), 9.

7. Roy Bhaskar, *Reclaiming Reality* (London: Verso, 1989), 188; quoted in Curry, 'Reconceptualizing the Real', 145.

8. Guus Duindam, 'Why critical realists ought to be transcendental idealists', Journal of Critical Realism (2018) DOI:10.1080/14767430.2018.1482724

9. See Joseph and Roberts,eds., *Realism Discourse and Deconstruction.*

10. See Diana Coole and Samantha Frost, eds., *The New Materialisms: Ontology, Agency, and Politics* (Durham, NC: Duke University Press, 2010).

11. Murray Bookchin. *The Politics of Cosmology.* Currently unpublished manuscript, https://web.archive.org/web/20170118112127/https://8ch.net/leftypol/res/1235343.html

12. John Clark, 'Critical Comments on The Politics of Cosmology', 18 July, 2019, www.pmpress.com , 2019.

13. Bookchin, *Politics of Cosmology*, 611.

14. Ibid., 735.

15. Ibid., 738.

16. Ibid., 749.

17. Ibid., 767.

18. Ibid., 776.

19. Ibid., 777.

20. Catherine Malabou. *Before Tomorrow: Epigenesis and Rationality,* trans. by Carolyn Shread (Cambridge: Polity Press, 2016).

21. See Paul Abela, 'The Demands of Systematicity: Rational Judgement and the Structure of Nature', in Bird, Graham, ed. , *A Companion to Kant* (Malden, MA: Blackwell Publishing, 2006), 408-422.

22. See Michael Friedman, *Kant's Construction of Nature: A Reading of The Metaphysical Foundations of Natural Science* (Cambridge: Cambridge University Press, 2013).

23. Immanuel Kant, *Critique of Pure Reason* (§27, B167) from Guyer and Wood (1998), abbreviated version quoted in Malabou (2016), 21.

24. Malabou, *Before Tomorrow,* 90.

25. Ibid., 98.

26. See Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency,* trans. Ray Brassier (London, Continuum, 2008).

27. *After Finitude, 66.*

28. *Before Tomorrow,* 153.

29. Ibid., 155-174.

30. Ibid., 176.

31. For an analysis of the Eurocentric discourse of universalistic time, see Nick Hostettler, 'The dialectics of realist theory and the Eurocentric problematic of modern discourse', in *Realism Discourse and Deconstruction,* 180-198.

32. CPR 691-92, A833/B861, quoted in *Before Tomorrow,* 182.

33. *Before Tomorrow,* 184.

34. Ibid., 183.

Chapter 6: The Dialectic in Question

In the previous two chapters, I looked at how complexity science and Malabou's thinking of a 'new necessity and a new contingency' in her study of the epigenetic development of causality in Kant from the first to the third Critique suggest a critique, elucidation, and transformation of social ecology's concepts of nature. I argue especially for a transformation of Bookchin's concepts in relation to what has been termed his 'directionality thesis', informed by Malabou's complex rethinking of necessity and contingency in nature.

This chapter explores a further dialogue between Bookchin and Malabou on the question of a dialectic of nature and on the nature of the dialectic, continuing the conversation across the boundaries of science and philosophy, and building on the concept of epigeneity towards introducing a way in which the dialectic can open more fully and explicitly to alterity. The discussion is particularly complex philosophically and historically. I attempt to weave together diverse streams of thought in a way that increases the resonance of reading Bookchin and Malabou reading Hegel. I first examine dialectic as defined by two scientists, albeit scientists writing from a neo-Marxist perspective: Richard Levins and Richard Lewontin. I then move to the question of a dialectic of organisms in nature, informed by epigenetics and neuroscience, suggesting how this discussion supplements the dialectic as understood by Levins and Lewontin. Next, I am prompted by the criticisms of John Clark of Bookchin's 'neo-Aristotelian' and 'pseudo-Hegelian dialectic' to analyse Bookchin's and Malabou's treatment of Hegel, arguing that Malabou provides a reading of Hegel that avoids a dialectic of identitarian closure. Further, her reading offers a plastic reading of Hegel's Absolute Knowing. As Gillian Rose has argued, such a reading of Absolute Knowledge is crucial for an appreciation of the political implications of the speculative concept. Finally, I place these reflections in the context of Andrew J. Douglas's thoughts on restaging the dialectic of the social and political in a dimension more

'tragic' rather than 'comic'—'comic' meaning the happy and peaceful resolution of conflict and contradiction, a notion of dialectical resolution rejected by Nietszche and his heirs. Bookchin's dialectical naturalism in this transformed perspective offers important resources for a radical democratic politics.

Another Dialectic of Nature

Levins and Lewontin, two biologists influenced by Marxist perspectives, 'reluctantly' attempt to loosely formalise their approach to dialectics.[1] They are reluctant partly because of the way in which formalisations of dialectic can easily seem rigid and dogmatic. They are reluctant also because they want to avoid the assumption that dialectics are rules derived simply from nature. They point to a dialectical view of dialectics, in which they see their efforts as a negation and transformation of 'the prevailing ideological framework of bourgeois science', which they identify as the Cartesian reductionist perspective. They characterise the Cartesian perspective as made up of four ideological commitments: A natural set of units or parts comprise any whole system; these units are homogenous; these units or parts are prior to the whole; and causes can be separated from effects without ambiguity.

Further, Levins and Lewontin elaborate three dialectical principles. The first is that a whole is a relation of heterogeneous parts having no prior independent existence *as parts.* From this principle flows the second, that the properties of parts have no prior fixed existence but are acquired by being parts of a particular whole. As an example, they observe that humans cannot fly on their own as individuals, but only because of the social organisation of aircraft, pilots, fuel, and so forth. The limitations of individuals are negated by social interactions. The whole thus acts on the parts. The authors note that increasing emphasis on wholes is shared by other movements that rebel against the fragmentation of life under capitalism, such as the holistic health and ecology movements. As with

Bookchin in his criticism of deep ecology's invocation of a quasi-mystical 'oneness' with nature, they argue for the need within these movements to go beyond reliance on harmony, balance, or 'oneness' with nature to a more dynamic and dialectical understanding.

The third dialectical principle is that the interpenetration of parts and wholes is a consequence of the interchangeability of subject and object, cause and effect. They contest the tendency of evolutionary theory to see organisms as the objects of evolution through natural selection. Similar to Bookchin's emphasis on the active and creative role of organisms in evolution, Levins and Lewontin emphasise that organisms are both the subjects and the objects of evolution: they both make and are made by the environment and are thus actors in their own evolutionary history. With regard to the most central concept of dialectical thought, contradiction, they argue that contradiction is not only epistemic and political, but also ontological in the broadest sense. Contradictions between forces are everywhere in nature, producing organic form as a temporary, dynamic balance of opposing forces. As with the analysis in the previous chapter, they see evolution resulting from the interaction of both random and deterministic processes.

Levins and Lewontin's dialectic shares many of the principles of social ecology; however, in discussing evolutionary processes, they rely on the almost exclusively genetic arguments that were prevalent at the time they were writing. Both their perspective and social ecology theory can now be enriched by more recent research into epigenetics.

Epigenesis and the Dialectic

The question I now turn to is that of the relevance of epigenesis and epigenetics, as we now understand it, to Bookchin's project of articulating an 'ecologised' dialectic. How do these concerns relate to the epigenetic model of rationality suggested by Malabou, the 'epigenesis of reason itself'?

How might Malabou's work contribute to an ecological dialectic that highlights difference and contingency?

We must first distinguish epigenesis, including its historical significance, from the current science of epigenetics. *Epigenesis* in biology refers to the process by which plants, animals, and fungi develop from a seed, spore, or egg through a sequence of steps in which cells differentiate and organs form. As contrasted with theories of preformation, epigenesis has been part of a perennial discussion that has taken various historical and philosophical shapes. Does the individual start in some preformed or predetermined way, or does the individual begin with unformed material, and form emerges gradually over time? The epistemological debate has centred on questions of observation versus inference, and the metaphysical or ontological debate includes the question of what it is that exists—form?, or also the unformed that becomes form? Today the question sometimes plays out as a debate over nature versus nurture, or genetic determinism versus the effects of environmental plasticity. The questions raised by these debates have important implications for the question of when life begins, and thus for example, policies related to abortion and genetic engineering.

Conrad Waddington invented the term "epigenetics" in the late 1930s to refer to the hidden webs of connections among genotypes and phenotypes. The term was soon widely taken up; however, it acquired meanings Waddington had not intended. In the late 1970s epigenetics became associated with the new work on methylation and gene activity. Some scientists limited its use to changes in gene function transmitted through cell division, and others explored a broader notion of epigenetics. Jablonka and Lamb use the following definitions:

> *Epigenetics* is the study of developmental processes in prokaryotes and eukaryotes that lead to persistent, self-maintaining changes in the states of organisms, the components of organisms, or lineages of organisms.
>
> *Epigenetic inheritance* is a component of epigenetics. It occurs when phenotypic variations that do not stem from variations in DNA base sequence are transmitted to subsequent generations. Variations can be transmitted in mitotically dividing lineages of cells, in lineages of organisms that reproduce asexually, and in lineages of sexually reproducing organisms.
>
> *Epigenetic* mechanisms are the mechanisms that produce persistent development effects. They underlie developmental plasticity and canalization. At the cellular level, they establish and maintain the changes that occur during cell determination and differentiation in both nondividing cells, such as brain cells, and dividing cells, such as stem cells. At higher levels of biological organization, epigenetic mechanisms underlie self-sustaining interactions between groups of cells, and between the organism and its environment.[2]

Jablonka and Lamb refine their broad definitions of epigenetic inheritance for sexually reproducing organisms in the following way: If a phenotype is inherited because a cellular variant somehow survives meiosis and all the processes involved in gamete production, they use the term ‘gametic epigenetic inheritance’. For inheritance that bypasses the gametic route, they use the expression ‘soma-to-soma transmission’. In a far broader sense, Jablonka and Lamb acknowledge that each of the four inheritance systems they discuss overlap, and thus ‘epigenetic inheritance’ can refer to any of the non-genetic systems: consisting of the behavioural system, the symbolic system, the epigenetic inheritance system proper, or all three.

In this broader sense, the increasing complexity of our understanding of epigenetic factors in neuroscience and in natural evolution informs Malabou's epigenetic model of rationality. The question for a dialectical naturalism now is how this model is to be understood dialectically. Most critically, how do we conceive *potentiality,* fundamental in differing ways for Aristotelian and Hegelian dialectics, and for Bookchin's philosophy as well, in ways that are adequate to our current understanding of evolutionary factors beyond the strictly genetic?

Necessity and Contingency Evolving

John Clark criticises Bookchin for his 'neo-Aristotelian' dialectic modelled on 'simple' analogies of plant and embryonic growth, in which potentiality is actualised (quoting Levins and Lewontin) as the 'already known'.[3] Bookchin's extensive writings on Aristotle in *The Politics of Cosmology* reveal that he is anything but naïve about the numerous issues that swirl around notions such as potentiality, entelechy, necessity and contingency, and telos. He presents a nuanced and historically enriched appreciation of Aristotle's thought in relation to Greek society and "the tradition", as is evident in the following passage concerning John Dewey's writings on Aristotle:

> John Dewey's one-sided treatment of the Aristotelian corpus in *Reconstruction in Philosophy* could be regarded as the received wisdom of the 1920s and 1930s on Aristotle, an overview that still predominates in the academy today. After examining the geocentric, fixed, unchanging "tight and pent-in" cosmos that was reared in Aristotle's name during the long centuries after the philosopher's death, Dewey takes us through a journey of changes that are locked into predetermining teleologies . . . a "hierarchy of Being" divested of any novelty in which a modern word like potentiality "never means as in modern life, the possibility of novelty, of

> invention, of radical deviation, but only that principle in virtue of which, the acorn becomes an oak".[4]

Bookchin strongly contests this portrait of Aristotle's thought, in terms that illuminate the link to Hegel and to his own social ecology project.

> That Dewey's survey is actually a reading of a highly Platonized Aristotle is a recent evaluation that is replacing its Christianized caricature. Our present understanding of potentiality is more complete, thanks largely to Hegel in my view, than Aristotle's; but without Aristotle's concept of *dynamis* Hegel's notion of potentiality would seem like a bolt out of the blue. . . . Nor do novelty and spontaneity disappear from the authentic Aristotelian corpus. Despite his attempt to retain logical necessity within nature itself, Aristotle nevertheless tells us in "On Interpretation", an integral part of the logical *Organon* that "It is therefore plain that it is not of necessity that everything is or takes place; but in some instances there are real alternatives, in which case the affirmation is not more true and not more false than the denial; while some exhibit a predisposition to and general tendency in one direction or the other, and yet can issue in the opposite direction by exception".[5]

Bookchin was thus clearly not naïve in relation to philosophical issues of potentiality, necessity and contingency, whether in Aristotle, in Hegel, or in their heirs. He thought the increasing focus in modern and postmodern thought on contingency, attributable at least in part to the perceived collapse of faith in overarching narratives of progress constructed on various forms of necessitarian *telos*, whether Hegelian, Marxist, or bourgeois scientific, was already overdone by the late twentieth century as he was developing his social ecology. For Bookchin, this absenting of any sense of necessity in

nature, history, or logic was leading to a relativist *ethos* of 'anything goes', and an apolitical and incoherent pluralism unable to consolidate a new ethics and politics capable of effectively contesting the hegemonic material and ideological capitalist forces ravaging both human society and the natural world.

In supporting recent philosophical efforts to rethink and transform the meanings of these terms, I argue subsequently for the validity and importance of these transformations not only in general, but also in fact for relaunching the philosophical project of social ecology. Here, I focus on moving beyond the 'straw man' of John Clark's caricature of Bookchin's thinking in regard to these concepts.

Contingency and Complexity

Returning to the scientific perspective of recent epigenetic research, we are increasingly able to appreciate that such processes as the maturing of an acorn into an oak tree or an egg into a chicken, are anything but simple and predetermined. As one example of the complexity and contingency at the cellular and intracellular level, Jablonka and Lamb summarise recent epigenetic research into varieties of yeast:

> Another example of adaptive diversity that is related to methylation diversity is found in the flower-living yeast *Metschnikowia reukaufii*. This is a clonal yeast that can live on a very wide range of nectars from many different species. It is spread from flower to flower by insect pollinators, and the various flowers it encounters have nectars that differ in the composition and concentration of their sugars. The rapid adjustment necessary for the yeasts to exploit the different nectars is associated with changes in DNA methylation, not DNA base sequence. . . . There is . . . plenty of good evidence that adaptations can be transmitted to the next generation

> through epigenetic inheritance systems. . . . Often this type of transmission is referred to as "adaptive transgenerational plasticity".[6]

In considering the difficult question of how to think a Kantian *a priori* necessity in transcendental formation and the role of chance in the formation of the living being, Malabou quotes Georges Canguilhem:

> In a 1962 essay, Georges Canguilhem shed light on this difficulty in a remarkable fashion. He suggested that epigenesis is a "forming without preformation". By contrast, "'contrary to common sense, [preformationism] implies that the germ is already what one day it is destined to become'". But, in order to prove the legitimacy of Canguilhem's thesis and to deny this predeterminism, those who argue in favor of epigenesis must emphasize the role of the unforeseeable at work in all generative becoming. They must demonstrate that the individual who will be born will necessarily be surprising. That this individual cannot be born *before tomorrow.* If embryonic growth has to respect an order, it is equally true that all life in gestation is "the conquest of its figure, volume, and form". And this achievement includes a dimension of contingency. If "there is no future for a preformed being", there is at least the unpredictable in epigenetic development.[7]

How then might we conceive of a 'dialectic' in natural evolution according to what Wilfred Sellars termed a 'scientific image', informed by the study of epigenetics? Organisms in the process of development must meet the demands of genetic and epigenetic factors through their chemical and other mechanisms, leading to self-stabilisation on the one hand, and to change, growth, and decay on the

other. Conrad Waddington in the 1940s began to visualise these as constituting an 'epigenetic landscape' of hills and branching valleys descending from a high plateau. The plateau represents the initial state of the fertilised egg, and the valleys are developmental pathways leading to particular end states, such as a functioning eye or heart. Perhaps we might also think of the varying slopes of these valleys as 'slopes of necessity/contingency' as presented by Malabou in relation to the Hegelian dialectic in *The Future of Hegel.* We shall consider Malabou's treatment of contingency, necessity and freedom more closely in her reading of Hegel later.[8]

Some of the steeper valleys in this image may lead to characters that are less variable; the end products of broader valleys may vary more. Waddington pictures the landscape in terms of 'guy wires' attached to 'pegs"' in the ground. He thinks of the pegs as genes and the wires as representing the chemical tendencies of both genetic and epigenetic forces leading to development outcomes of various kinds. The many 'wires' attached to individual 'pegs' or genes indicate that any specific chemical or morphological change can be compensated for by a sort of adjustment to the tension on remaining wires, even if one of the pegs is knocked out (say by forces that lead to the expression of an allele of a certain gene). This image portrays a dynamic developmental 'buffering' or *canalisation* that buttresses phenotypic stability. A huge number of potential phenotypic variations resulting from changes in nucleotide sequences and other changes, can thus be compensated for and effectively neutralised, resulting in increased phenotypic stability.

On the other side of an epigenetically understood 'dialectic' from stabilising factors is *plasticity,* understood in the general "scientific image" of variability and malleability, and not of course in Malabou's philosophical register, in which plasticity is not sheer malleability but retains a resistance to polymorphism and the ability to auto-annihilate itself completely. Biologists have long known that multicellular organisms, including human beings, have a lot of developmental plasticity: their

phenotype depends on a multitude of environmental factors in addition to their DNA. The web or network of interactions in an organism can itself be seen as a unit of selection—rather than as properties of single genes. This unit becomes more robust in terms of *both* stability and flexibility, that is, its canalisation or stability in the face of environmental perturbations *and* its plasticity or ability to respond to changing conditions. It is not difficult to conceive of this process as a cumulative dialectic of canalisation and plasticity often leading to increased complexity and evolutionary success. Yet here too, the process combines genetic necessity and epigenetic freedom, and is not to be conceived according to an overarching teleological notion.

Jablonka and Lamb look at West-Eberhardt's studies of phenotypic and genetic accommodation in terms of the evolution of the dialectic of canalisation and plasticity. West-Eberhardt argues that if an adaptive developmental response in the form of a phenotypic accommodation occurs repeatedly over many generations, it may lead through natural selection to genetic changes, or genetic accommodation. The result would be increased canalisation, increased plasticity, or amelioration of harmful side effects of the response. In all three cases, phenotypic adjustment comes first, and genetic change follows. The evolutionary dialectic evoked here would thus have the quality of what Malabou characterises as an epigenetic process at the surface contact point of organism/environment, rather than the more linear process governed by an underground origin or source.

Not only is there unpredictability in epigenetic development, but the momentary unity-in-diversity that constitutes emerging individuality is a 'taking hold of' in a complex network of different competing/cooperating forces. Difference precedes sameness or identity. However, this unity-in-diversity of the emerging subject only reveals a further aspect of the dialectic, as the subject actualises itself in its internal self-differentiation. Bringing epigenetics into dialectic adds a new dimension, from Bookchin's grounding of the dialectic in natural evolution, to Malabou's rethinking of the biological as

a site of resistance to sovereignty shaped by capital and the state. I return to the question of the biological as a site of resistance in the next chapter.

Elements of a Dialectic

As a refinement of dialectical elements presented by Levins and Lewontin, we might condense the essential characteristics of dialectic into processes of reflexivity, contradiction, and narrative. For the project of an ecological dialectic, we may add the elements of *cumulative* structure, evident in Hegel's discussion of habit and simplification, and the process of moving from potentiality to actuality.

In the most general terms, Levins and Lewontin define dialectic as the interplay of opposing forces in the natural world, achieving only temporary equilibrium, a definition that would apply to the Hegelian dialectic, though less to the historical materialist dialectic of Marx. Malabou's dialectic of self-maintenance and self-transformation in *What Do We Do with Our Brain?* (see next section) is relevant at the level of the organism in nature. Bookchin wants to understand a dialectic of nature as a rationally developmental process and not mere change, which allies him more with aspects of the Hegelian dialectic of self-grounding reason, rather than with a historical dialectic that is at least partly empirical, as in Marx.

For Bookchin's social ecology, this is a dialectical concept of form in nature becoming increasingly differentiated, organised, and imbued with subjectivity. Reflexivity itself is a graded process from nascent subjectivity to human rational reflection. Contradiction can be conceived as forces that would oppose continued growth and differentiation, whether 'inner' or 'outer', though these terms can be deconstructed. Evelyn Fox Keller, for example, challenges the dichotomy of inner/outer and nature versus nurture as used to describe genetic evolution, including ideologies of bodily 'innateness' that have supported eugenics and misogyny.[9] Regulation of gene expression cannot be

divided into nature or nurture. The entanglement of nature and nurture means there is no causal role of a gene without environment. This naturalistic argument can be compared to Malabou's ontological discussion of Hegel's treatment of the dialectical identity of necessity and contingency.

A Neurobiological Dialectic

Malabou asserts the possibility of seeing the relationship between genetics and epigenetics as itself dialectical. Epigenetics as a science studies non-genetic changes or modifications, changes that do not alter the DNA sequence. Originally, epigenetics covered all mechanisms that control gene expression, and that make possible the passage from the genome to the individual physical structure and appearance of each living being. By extension, epigeneticists study the changes (as in the brain) that are attributable to experience or education. Because of its plasticity and the epigenetic character of an important part of its development, the brain is not a mere biological organ. It can also be considered a historical organ.

In *What Should We Do with Our Brain?* Malabou explores a concept of plasticity that can provide a resistance to an 'ideological norm advanced consciously or otherwise by a reductionist discourse that models and naturalises the neuronal process in order to legitimate a certain social and political functioning'.[10] She cites the work of Luc Boltanski and Eve Chiapello, who, in their analysis of the ideologies of neo-liberal capitalism, emphasise the way in which forces of capitalist production mobilise concepts and tools from scientific research, such as neuroscience research. In particular, neuroplasticity is interpreted in terms of *flexibility,* supporting the demand for lean, decentralised and mobile networks of production, replacing the notion and the material reality of centralised hierarchical power, just as the hierarchical model of the brain is superceded by images of decentralised, flexible neuronal connections. Employees must be flexible, ready to relocate geographically, respond to 'flex

time'. Critical opposition to this ideology of neuroscience must provide a coherent alternative understanding of the brain and consciousness, one that moves beyond both the uncritical neuroscientific accounts themselves and intellectual opposition anchored in nothing more than 'anti-reductionist' sentiments. How can we create not only an all-new brain but a new identity that fosters a revolution in ourselves and in our lives? How can we develop a convincing challenge to the ideological hegemony and colonising effects of Western science, that is critical and not simply rejectionist?

Malabou proposes that we need a new type of plasticity in addition to developmental, modulational, and reparative plasticity, an intermediate plasticity between the proto-self and the conscious self. This plasticity would define a plasticity that 'holds its shape' and provides a resistance to the polymorphism of the ideology of flexibility, a tension that makes genuine transformation possible. Malabou describes this neurobiological dialectic:

> The plasticity of the self, which supposes that it simultaneously receives and gives itself its own form, implies a necessary split and the search for an equilibrium between the preservation of constancy . . . and the exposure of this constancy to accidents, to the outside, to otherness in general (identity, in order to endure, ought paradoxically to alter itself or accidentalise itself). What results is a tension born of the resistance that constancy and creation mutually oppose to each other. It is thus that every form carries within itself its own contradiction. And precisely this resistance makes transformation possible.[11]

In addition, this resistance marks a historical philosophical shift not only within Continental philosophy in terms of its resistance to a thinking of the brain, but also between Continental and Anglo-

American philosophy in the latter's concern with the project of articulating a 'scientific image' in empirical neurobiological terms. Reading Malabou's epigenetic paradigm of rationality retrospectively into her dialectic of constancy and creative self-overcoming, we may say that rationality, while not collapsing into a simple identity with its neurobiologically explicated proto-self, remains within a 'one nature' in which life makes meaning 'all on its own'. Epigenetic rationality, with the fused tension of its retrospective-prospective temporality, has its own economy of transformability. The emergence of a 'second nature' does not mark an ontological gap or the breach of a messianic transcendence.

That 'every form carries within itself its own contradiction' is exactly the way in which Murray Bookchin speaks of the dialectic of becoming, as the negation of a current form established by self-maintenance to a new form, mediated by exposure to contingent events. Bookchin, however, wants to emphasise the cumulative, sublating character of the dialectic to describe processes of growth and development, in a process extended across an evolutionary continuum, however marked by radical disjunctions. Though he fails to explicate the meanings of 'potentiality' consistently at the level of second nature, and show how it differs or represents a process of emerging complexity and contingency in relation to growth and development in first nature, the dialectic of self-maintenance and self-overcoming extends over both. Still, how might the social ecology dialectic respond more effectively to its most persistent critics on the question of openness to alterity, given a dialectical understanding of the relation between genetics and epigenetics?

John Clark's Critique of Bookchin

In responding to this question, I now examine a notably harsh critique of Bookchin's dialectical naturalism. In 'Domesticating the Dialectic' John Clark claims that 'Bookchin does not

in fact develop an ecological dialectic, but instead uses dialectic . . . in a purely instrumental manner to legitimate a fundamentally neo-Aristotelian and non-dialectical metaphysics'.[12] Clark reminds us that 'authentic dialectic' remains the 'ruthless critique of everything existing', and that Bookchin's 'instrumentalisation' of dialectic 'domesticates it in the sense that it robs it of its wildness, its ferociousness, its bite'.[13] He critiques Bookchin's attempt to stay within an immanent dialectical logic of the unfolding of truth wherein the challenge of praxis is simply to overcome the barriers that stand in the way of that unfolding, barriers which Bookchin tends to see more on the left, creating a sectarian politics. Clark asserts that 'He never treated adherents of contending positions as subjects worthy of dialogue, or their positions as possible sources of truth to be developed dialectically. Rather he saw them as mere obstacles'.[14]

In Clark's account, Bookchin sees himself as a defender of dialectical reason and reason itself against the dangers of tendencies ranging from neo-primitivism to postmodernism. Clark quotes Marcuse's observation that 'it is the idea of Reason itself which is the undialectical element in Hegel's philosophy'. By equating dialectic with the most non-dialectical dimensions of Hegel and other dialectical philosophers, unperceptive critics have unfairly dismissed dialectic altogether.

Bookchin, according to Clark, engages in a 'similar travesty of dialectic'. He quotes a passage from Hegel that he accuses Bookchin of invoking repeatedly to show the true meaning of dialectic:

> Because that which is implicit comes into existence, it certainly passes into change, yet it remains one and the same, for the whole process is dominated by it. The plant, for example, does not lose itself in mere indefinite change. From the germ much is produced when at first

> nothing was to be seen; but the whole of what is brought forth, if not developed, is yet hidden and ideally contained within it.[15]

Clark comments that here Bookchin 'tames' Hegel's dialectic by reducing it to a model of internal teleology, thus shielding it from 'that wild dialectic that threatens all fixed concepts and dogmatic thought'. Accordingly, the only contradiction usually admitted by Bookchin is that between a being's potential and the actualisation of that potential. Clark writes:

> Levins and Lewontin have identified a major failing of ''bourgeois thought'' to be its undialectical, ideological perspective in which ''change is often seen as the regular unfolding of what is already there". This criticism also identifies perfectly the failing of Bookchin's conception of dialectic. Levins and Lewontin note that the problem they pinpoint ''also contaminates socialist thought when the dynamic view of history as a history of class struggle is replaced by the grand march of stages". The dialectical clash of heterogeneous yet interrelated elements is replaced by the orderly unfolding of what is already known by the revolutionary ideologists to be there. Bookchin is a paradigm case of the leftist variety of this malady. Such identitarian thinking contaminates not only his view of the sweeping course of history but his interpretation of social and natural phenomena in general.[16]

Despite Bookchin's denials of (full) teleology in his philosophy, Clark insists that it is indeed teleological in the broader standard sense as 'the philosophical doctrine that all nature, or at

least intentional agents, are goal-directed or functionally organised'. Bookchin adopts Aristotle's idea of an 'internal teleology' in which each kind of being has a final cause and 'entities are so constructed that they tend to realise this goal'. Thus, Bookchin's use of such terms as *nisus* or tendency would evidence this neo-Aristotelian viewpoint that he mistakenly labels as constituting an ecological dialectic. In addition, Clark points to a more problematic implication of Bookchin's teleological thinking when he writes that he does not have recourse to theistic 'perfection' to explain the almost magnetic eliciting of a 'development'. When Bookchin's teleological thinking and voluntarism appear to draw the entire evolution of life and of social development towards the social and political order he champions, 'one must wonder whether some unidentified God is not lurking somewhere in the background with a large magnet'.[17]

Clark attacks Bookchin's presentations of a stark dichotomy between 'conventional reason' and dialectical reason. He writes: 'Bookchin's contention that conventional reason (whether analytical, theoretical, deductive, inductive, instrumental, technical, or empirically scientific) cannot take into account changes of one thing into another is just unthinking nonsense. Ordinary chemistry . . . [and] biological science does [this] quite well and in minute detail'.[18]

Clark further critiques Bookchin's emphasis on the 'objectivity of potentiality' in terms of his analogy of a bird egg, which 'patently and empirically exists, even though the bird whose potential it contains has yet to develop and reach maturity'. Clark accuses Bookchin of formulating his 'ultimate telos' in terms of the 'presently nearly non-existent' libertarian municipalist movement as the form in which humanity would realise its freedom and creative potential, a movement that 'unfolds very much as his proverbial seed grows'.[19] A more genuine dialectic would 'tarry with the negative', to paraphrase Hegel. Clark cites examples of this radical

dialectic: Hegel's master-slave dialectic (which he interprets in Marxist terms); Marx's dialectical view of labour, the tetralemma of the Indian Buddhist philosopher Nagarjuna; Adorno's recognition that otherness is not mere opposition but leaves a remainder; the shifts of perspective expressed in Slavoj Zizek's concept of the "Parallax View"; and Gary Snyder's reflections on nature, in which he looks not at the immanent unfolding of the organism but at the creative possibilities of "conditions", whereby we can say "Huckleberries and salmon call for bears."[20]

Finally, Clark accuses Bookchin of arguing a defective form of naturalism as well as of dialectic, as when Bookchin writes 'dialectical naturalism asks which is truly real—the incomplete, aborted, irrational "what-is", or the complete, fully developed, rational "what-should-be". Clark comments, 'to call a view "naturalism" that maligns "what-is" as aborted and dismisses it as "irrational" is a bit ironic'.[21]

A Social Ecology Response to John Clark

John Clark's attack on Bookchin's social ecology occurred in the context of a long series of polemics, in which Clark turns bitterly against his former mentor. Predictably, there have been replies from the social ecology community to yet another caricature of Bookchin and his philosophy. Bookchin's long-time partner Janet Biehl replies to Clark's article in *Capitalism, Nature, Socialism* in a subsequent edition of the same journal, a response that I build on.[22] Biehl notes that Bookchin was a careful student of history and of the social-revolutionary tradition—far from espousing an ahistorical voluntarism, he was acutely aware of social and cultural conditions and their history and development. He sought to develop this tradition, learning from the past and addressing new conditions. Thus, he articulates a cogent critique of Marxism and the Marxist dialectic, though he admires certain aspects of

it, especially the dialectical treatment of the commodity relationship.

Most crucially, he endeavors to address the growing awareness of the ecological crisis, and he does this by bringing ecology into revolutionary thought by means of a dialectic that encompasses increasing differentiation and complexity, leading to increasing subjectivity and consciousness and the potential for increasing conscious choice. This dialectic culminates in human rationality and the potential to reconstruct society along rational lines that would foster increasing degrees and dimensions of freedom, despite historical setbacks, digressions, and defeats.

Biehl rejects Clarks positing of the Buddhist or Zen dialectic, whose dialectical contradictions speak to the *vita contemplative* rather than to the *vita activa.* She acknowledges that Bookchin uses simple analogies from plant growth for heuristic purposes—as does Hegel and Aristotle. However, Bookchin certainly acknowledges that the 'distinct directionality of conscious beings' (in contrast to the growth of plants) is 'purpose as will'. Clark's claim that 'it seems not to have occurred to Bookchin that there is a crucial difference between determining the reality of a bird's egg and determining those inherent in a social phenomenon' is a 'piece of straw' in the straw man he chooses to present as Bookchin the philosopher. Biehl writes that Clark 'goes on to chastise Bookchin for failing to provide any evidence that any process in human society is "analogous to the healthy growth of a plant or animal across its life cycle". Yes, Bookchin did not do so—because he didn't believe they were analogous in that way, and only Clark has said, falsely, that he did!'[23] Clark thus scolds Bookchin for failing to live up to the caricature he has created of him.

As we have seen, Bookchin's readings of philosophy are close, accurate, historically informed, and attentive to primary sources. He dissociates himself for good reason from Aristotle's notion of final cause as 'the end, that for the sake of which a thing is done'. Biehl notes the Gary Snyder quote

that Clark includes in which 'salmon call for bears' is more appropriately characterised as neo-Aristotelian than Bookchin's writings. She concludes:

> Did Bookchin really present no ''normative basis on which to judge that any particular development of humanity constitutes what 'should be'''? Of course not. He often wrote about the ethic of complementarity, usufruct, the equality of unequals, and reason as the basis for ethics—see most notably The Ecology of Freedom. Did Bookchin really ''make no attempt to relate 'the history of freedom' to the specific social conditions that might make freedom and justice into historically grounded realities?'' Even a passing familiarity with Bookchin's works shows that he made more than an attempt, and readers of everything from ''The Forms of Freedom'' in Post-Scarcity (1971), to The Limits of the City (1974), The Spanish Anarchists (1977), The Rise of Urbanization (1982), and The Third Revolution (1996_2003) will be surprised to hear anything to the contrary. Did Bookchin really ignore the fact that ''the dynamics of a political movement can exist only in relation to specific state formations'' as Clark alleges? Fulfilling Clark's demand to provide ''specifics'' and more ''specifics'' would make all theorizing impossible, yet Bookchin was entirely concrete about his aims.[24]

Biehl's recovery of Bookchin's project from Clark's caricature is an able and worthy one in the main. Unfortunately, her taunting of Clark for his Zen references may reinforce for many readers the point he is making about social ecology's hostility to Eastern thought and Asian philosophy. Her riposte concerning Gary Snyder's 'neo-Aristotelian' comments is a misreading: bears in no way

represent the actualisation of the potentialities of huckleberries or salmon, or vice-versa; Snyder is merely asking that we endeavour to see evolutionary interrelationships from a fresh perspective.

A more incisive critique of Clark would be to expose the way in which he presents hasty and one-sided readings to mobilise his attack on Bookchin. The selection from Levins and Lewontin that Clark cites reads thus:

> In bourgeois thought change is often seen as the regular unfolding of what is already there (in principle in the genes, if not physically preformed); it is described by listing the sequence of *results* of change, the necessary stages of social or individual development. This shift from process to product also contaminates socialist thought when the dynamic view of history as a history of class struggle is replaced by the grand march of stages, from primitive communism through slavery, feudalism, capitalism, socialism, and on into the glorious sunset.[25]

In responding to this passage, I first note that Levins and Lewontin are initially talking about the bourgeois thought of change, rather than about any particular formulation of the dialectic. The mention of 'regular unfolding' from genes suggests, I again argue, the way in which a philosophical assimilation of epigenetics might challenge such 'bourgeois' thinking. When the authors extend their point about product over process in the third sentence to talking about the way in which the 'vulgar' versions of the Marxist dialectic of class struggle present a 'grand march of stages', they are offering a critique of Marx that Bookchin has already articulated with unmatched eloquence, sophistication, historical nuance, and power.

One of Bookchin's seminal writings in this regard is 'Marxism as Bourgeois Sociology' in *Toward an Ecological Society,* in which he pointedly critiques Marxist scientism (evident in the supposed lawfulness of the trajectory of evolutionary 'stages'), ethical shortcomings, and orientation

towards the conquest of nature. Indeed, the subtlety of Bookchin's dialectic, which navigates skilfully between the 'overdetermination' of accounts of social forces and sheer volunteerism, emerges most strongly in his historical writings, in such works as *The Ecology of Freedom, Toward an Ecological Society, Urbanization without Cities,* and *The Third Revolution.*

Given this, some elements of John Clark's criticisms remain valid and significant. Among these are the critique of the strict dichotomy between 'conventional' and 'dialectical' thinking, a dichotomy that calls for deconstruction (see chapter 3); and the generally identitarian thinking in which Bookchin's dialectic is cast. Further, his ecological dialectic would benefit from further elaboration of the connection between natural life and rationality. Here, Catherine Malabou's work as a whole, not only her work on Hegel, offers valuable resources towards articulating Bookchin's project in relation to contemporary thought in a sympathetic, rather than a hostile and dismissive critical inquiry. Next, before turning again to Malabou, I look more closely at Bookchin's writings on Hegel.

We are not done with Hegel

In *The Politics of Cosmology,* Murray Bookchin devotes considerable space to Hegel. In commenting on Hegel's system, Bookchin focuses on an organic approach vs. a 'mechanic-mathematica' approach, a contrast he locates in classic Greek thought. He finds Aristotle more 'developmental' than Plato. Bookchin examines Marcuse's assertion in *Reason and Revolution* that Hegel's philosophy is largely a reinterpretation of Aristotle's ontology, freed from 'the distortions of metaphysical dogma' and linked to the demand of modern rationalism that the world be experienced as a medium for the freely developing subject'. Bookchin finds this view limited, and

examines how Hegel departs from the 'Aristotelian ontology', beyond a mere 'reinterpretation' of it.

Additionally, Bookchin presents a historically informed, if still somewhat conventional, appreciation of Hegel's accomplishment:

> Against the prevailing physical mechanism of the Enlightenment, Hegel asserted a highly nuanced philosophy of organism that has not been supplanted in our time by the so-called "spiritual" mechanism of systems theory in all its forms. The atomism (physical, social, and psychological) that we have still inherited in many different forms from that era are replaced in the Hegelian dialectic by contextuality and a rich sense of development.[27]

Bookchin elucidates—also in conventional terms—the cumulative formal process of the dialectical movement in which the *Philosophy of Nature* 'overcomes the division between Nature and Spirit and assures to Spirit the knowledge of its essence in Nature'. *Wirklichkeit* or Actuality is a key category for Bookchin, as the rational fulfilment of a potentiality, not merely the existential 'is' or *realitat.* The concept grasped in this way allows for the eduction of the 'what-should-be' from the 'is'.[28] However, he remarks that if actuality is embodied rationality, he must wonder, along with Marx, why the logic has ontological priority over nature. Bookchin further comments that the transition from pure reason to externality and otherness is ambiguous. He quotes Marx's well known satirical remarks in *The German Idealogy: '*[T]his whole Idea which behaves in such a strange and singular way, and which has given the Hegelians such headaches, is from beginning to end nothing else but abstraction . . . the mystical feeling which drives the philosopher forward from

abstract thinking to intuiting is boredom—the longing for content'. Bookchin finds Marx's criticism compelling and rejects any attempt to explain away the Platonic (and Plotinian) implications of Hegel's writings by shifting around the relationship of the logic to nature philosophy as aspects of a larger totality. He further announces his departure from the idealism of Hegel's thought, in a strategic rejection that also defines his own project:

> It is important to note here, that Hegel's idealism, his *logos*, impedes a radical naturalism that could make for an ecological ground for freedom. Herein lies one of his greatest failings, from my viewpoint, and the paralysing consequences of his teleological approach.[29]

In another passage, Bookchin interprets Hegel's concept of Geist in ways that move towards a concept not only of his dialectical naturalism, but also of a concept close to Malabou's concept of plasticity, naturalistically considered:

> The cosmic Geist advanced by Hegel would be form *as such,* but form conceived as dialectical in character, hence a form that becomes ever-differentiated, organized, and subjectivised. We approach here a dialectical naturalism that I have advanced as the philosophy of social ecology.[30]

Together these passages reveal an ambivalence in Bookchin's thought between a Hegelian speculative approach and a 'more radical naturalism', a naturalism that moves uncertainly between an empirical scientific realism and what we might term (somewhat ironically given Bookchin's tendency to dismiss Kant), a Kantian-based Marxism—that is, a Marxist 'realism' based on what Hegel saw as the rigid categories of the Kantian understanding, as distinct from Malabou's epigenetic reading of Kant.

Malabou on Hegel

I now turn to Malabou's treatment of the Hegelian system, beginning with an extended prelude that first contextualises her work within the climate of anti-Hegelianism and suspicion of the dialectic in contemporary Continental philosophy. Next, I consider briefly an influential study of Hegel by Gillian Rose that focuses on where we must ultimately look for the political significance of Hegel's critique of Kant—namely, Hegel's concept of the infinite or the Absolute. Malabou's plastic reading of Hegel—especially of Hegel's Absolute Knowing—is then positioned to resonate most effectively in its political significance, which Malabou does not address directly in her study of Hegel but does in other works.[31] I conclude with a sympathetic appraisal of Andrew Douglas's thoughts on 'restaging' the dialectic, an appraisal that includes Douglas' discussion of the concept of *amor fati* with which he responds to Nietzsche, and which can serve as the basis for a social ecology response to some of John Clark's harsh criticisms of Bookchin.

Anti-Hegelianism in Twentieth Century Continental Philosophy

Influential French writers in the early twentieth century, in particular Jean Hyppolite and Alexandre Kojeve, considered themselves to be working within a Hegelian problematic. The former

attempts to accommodate Hegel's works to existentialism, and the latter to Marxism. Sartre, Merleau-Ponty and numerous others were inspired by the lectures of Kojeve in France on the *Phenomenology of Spirit* from 1933 to 1939. Contemporary German writers of the Frankfurt School in Germany, such as Horkheimer, Adorno, and Marcuse, generally accepted Hegel's view of the subject, even as they attempt to expand its limits. Heidegger and Gadamer, in contrast, had earlier rejected Hegel's view of self-consciousness, and argued for what they considered a less metaphysical approach.[32]

Heidegger in particular has been a primary inspiration for a later marked turn against Hegel in France, which has included such figures as Foucault, Deleuze, Derrida, Bataille, and Lacan. David Sherman provides a striking intellectual overview and interpretation of this phenomenon against the background of the historical/cultural moment:

> The movement away from Hegel in France, which began in the 1950s, was precipitated by a number of factors, not the least of which was the changing historical landscape. Unlike earlier French thinkers, such as Kojeve and Sartre, who saw in Hegel's dialectic the possibility of using philosophy for the purpose of bringing about historical change (like the Left Hegelians of the past century), more recent French figures came of intellectual age during the Cold War and the failure of the New Left during the 1960s—both of which suggested the relative intractability of history. Accordingly, for more contemporary French thinkers, history is not an opportunity, but a burden; it is either to be escaped or theorized in its intractability (which amounts to the very same thing). Indeed, this is in keeping with the French poststructuralist attack upon self-consciousness, for if there is an efficacious subject, it would be (in Sartre's terms) 'bad faith' to disclaim the ontological possibility of recreating society.[33]

Dialectics became increasingly suspect in the various reactions to Hegel's project, from Nietzsche to Heidegger. Nietzsche, only superficially acquainted with Hegel's works, scorns the 'Hegelian worship of the real as the rational,' within the unfolding stages of the dialectic, which supposedly amounted to a 'deification of success'. Heidegger attempts to go beyond what he sees as Hegel's effort to present being within a system organised by a 'vulgar concept of time', by exploring a renewed opening of the questions of time and being. Derrida's deconstructive readings emphasise heterogeneity rather than a system built on 'the imprisonment of difference within sameness' [of the unity of the dialectic]; and recognize multiple gaps and fissures instead of the dialectical gap bridged by *aufhebung*. As noted previously, Derrida rigorously demonstrates the way in which meaning is mutable, an effect of the play of *différance* a neologism that gestures to a play of deferrals and differentiations within meaning, and that, through interrogating these meanings, may suggest new possibilities for thought and politics.

Hegel's Critique of Kant

An important writer who emphasizes the political dimensions of Hegel's thought is Gillian Rose. In her *Hegel Contra Sociology*, though she does not champion an 'ahistorical return to Hegel', she brings to light quite thoroughly the importance of Hegel's critique of Kant, a critique Bookchin often references in terms of the presumption to 'know the unknowable'. Rose illuminates the political significance of Hegel's critique, a critique she feels the neo-Kantianism of the Marburg and Heidelburg schools fails to grasp fully. Proceeding from a more historical if also more conventional reading of Kant than Malabou, Rose writes,

> In the name of a neutral method which seeks solely to justify knowledge, transcendental philosophy justifies infinite ignorance not finite knowledge. It subjects the objects of both theoretical and practical knowledge to the "domination of the discursive concept". We can only turn from our limited knowledge of the finite to an insatiable yearning for the unknowable and inaccessible infinite. But this irrational relation to the infinite makes a rational relation to the social and political conditions of our lives impossible. The limitation of "justified" knowledge of the finite prevents us from recognizing, criticizing, and hence from changing the social and political relations which determine us. If the infinite is unknowable, we are powerless. For our concept of the infinite is our concept of ourselves and our possibilities.[34]

Rose's analysis of Hegel's critique of Kant may be transposed to Bookchin's work in a way that acutely defines the contours of his project—specifically, his attempt to recover a rational approach to fundamental questions raised by philosophical reflections on the natural world, beyond the limitations of reductive 'justified' scientific knowledge and the 'New Age' mysticism he felt was infecting so much of the thought of his day. Today, this path might be characterised as the challenge of clearing a route towards a Hegelian-inspired project of fundamental social and political transformation through an even more stark opposition between the unknowability of nature presumed by certain versions of social constructionism, and the increasing hold of irrationality in a time of 'alternative facts' and resurgent religious fundamentalisms.

Nevertheless, I argue again that Bookchin vacillates somewhat between the speculative dialectics of Hegel and what I have termed a Kantian-based Marxism, perhaps out of concern about the mystical or Christian implications of the 'ghostly' Geist or Spirit in Hegel. This approach contrasts with some social ecologists who look for a more traditional scientific-oriented epistemology for the

naturalism of social ecology. I support Bookchin's philosophical sophistication in choosing a Hegelian approach. If anything, he is not Hegelian enough, especially in drawing out the implications of Hegel's Absolute Knowing, as Rose encourages; however, I focus more on the difference and contingency that can be read in this concept, rather than on the general notion of a rational relation to the infinite.

Recovering a Future

Catherine Malabou's *The Future of Hegel* is helpful in providing arguments for a renewed appreciation of dialectics and speculative philosophy in a more ontologically focused way, yet one that enables a renewed political thinking of a radical democracy.[37] In addition, she provides support for the denial of a merely retrospective interpretation of Hegel's philosophy. A decisive focus, though not the ultimate focus of her book on Hegel, is to develop a strategy to contest the influential view of Heidegger, who claims in his 1930 lectures on *The Phenomenology of Spirit* that time for Hegel has always already "passed away:"

> Undoubtedly [Hegel] occasionally speaks about having been, but never about the future. This silence fits with the fact that (for him) the past is itself the decisive character of time, and for a good reason: time is both the passing itself and what passes; it has always passed away.[38]

As Malabou observes, the alleged absence of a conception of the future in Hegel's philosophy implies the absence of a future *for* the philosophy of Hegel. Malabou's strategy is not to thematicise temporality as such, but to shift the horizon of discussion by transforming a concept that has a defined and delimited role in Hegel's philosophy, into a comprehensive concept that can 'grasp'—in the sense

of both 'seizing' and 'comprehending'—the structure of the system as a whole, thus providing 'conditions of intelligibility' for how temporality is conceived.[39]

The concept Malabou refers to is that of *plasticity.* Plasticity in its ordinary meanings entered the German language in the eighteenth century as *Plastizität.* Significant among the attributes of plasticity are the ability to both receive form (clay is a plastic material in its malleability) and to give form, as does a plastic surgeon. Plastic materials are not simply polymorphous; they resist deformation and hold their shape, and even reform after a lesion, as with histological plastic tissues. Plastics of course have a negative ecological connotation (and reality) in being generally non-biodegradable. Malabou's philosophical appropriation of plasticity, however, builds upon the ability of 'plastic' forms to evolve and adapt in supple ways, as in the instance of neuroplasticity. Finally, plastic in itself is an explosive material made up of a nitroglycerine and nitrocellulose base.

These meanings and definitions form a 'hermeneutic circle' that allows for the exportation of the concept outside of its original domain. Hegel speaks of the relation of the subject to its accidents as 'plastic' in the preface to the *Phenomenology of Spirit*. In the *Philosophy of Spirit* he speaks of plasticity in relation to the ideal of Greek sculpture, in which the universal essence is captured or portrayed in the individual form; later he expands the notion of plasticity to describe the heroic figures of ancient Greece, such as Pericles and Sophocles, who self-formed and embodied a universal and essential character upon the foundation of their accidental individualities. Still later, Hegel speaks of the plasticity of the dialectical concept itself.

For Malabou's reading of Hegel, plasticity is a power that can fashion its own content, including the evolving nature of temporality. She cites the work of recent French commentators, such as Bernard Bourgeois, who critiques and revises the previous interpretations of Koyre and Kojeve who, while insisting on the future orientation of Hegel, acknowledge that the system as they understood it

could only be completed when time came to an end. These previous interpretations led to 'unresolvable contradictions' in relation to temporality in Hegel. Bourgeois and others, however, have demonstrated the dynamic unity in Hegel of 'eternity' and historical becoming.

For Malabou plasticity goes beyond an intentional Hegelian strategy and represents rather the *unforeseen* of Hegelian philosophy. Hegel sees the future as the relation that subjectivity maintains with its accidents. Time dialectically differentiates itself and thus temporalises itself, and forms the *anticipatory structure* operating within subjectivity:

> The dialectical composition of such concepts as "the future", "plasticity", and "temporality" forms the *anticipatory structure* operating within subjectivity itself as Hegel conceived it. To distinguish this structure from the future as it is ordinarily understood, we will name this structure "to see (what is) coming (*le voir venir)",* obeying Hegel's injunction to philosophize in one's own idiom. "Voir venir" in French means to wait, while is prudent, observing how events are developing. But it also suggests that other people's intentions and plans must be probed and guessed at. It is an expression that can thus refer at one and the same time to the state of "being sure of what is coming" and of "not knowing what is coming". It is on this account that the "voir venir", "to see (what is) coming", can represent that interplay within Hegelian philosophy, of teleological necessity and surprise.[40]

Further, Malabou explicates the importance of a *systematic exposition* both for speculative philosophy and for thinking the future:

> Being schematises itself, and the unification of the concept with empirical existence cannot be explained by anything external to the System. The scarcity of references to the concept of

> plasticity is thus evidence of its distinct mode of presence, which is that of the originary synthesis, maintained only in the interval between presence and absence. It is for this reason, because plasticity works on and within the body of the systematic exposition without ever extending above it or overdetermining it, that it is revealed as the concept capable of accounting for the incarnation, or the incorporation of spirit.[41]

Malabou's notion of the mode of presence of plasticity as an originary synthesis without extending above or overdetermining it suggests how we might conceive of an epigenetic dialectical naturalism in its originary synthesis of necessity/contingency without a teleological overdetermination, as long as we are careful to think of plasticity as a strategic term and not another 'first principle'. Hegel according to Malabou, works in two times at once: a Greek time represented by Aristotle's conception, and a modern one represented by Kant. In a later chapter, Malabou contests the interpretation and the implications of the dialectic seen as an independent 'automatism'. She analyses the operation of the plastic movement in Hegel's thought in the *Philosophy of Spirit.* It is beyond the scope of this project to present Malabou's reading of Hegel's *Philosophy of Spirit* in detail. However, Derrida remarks about the impact of the book, in his eloquent and substantial preface, 'A Time for Farewells':

> A whole horizon, our own landscape seems here to have changed, our philosophical territory, the European scene, and much more than the French. . . . there were few who did not situate their thought in the shadow of Hegel and in the legacy left by Kojeve's and Koyre's meditations. And not only in the more or less academic discipline of philosophy (Lévinas, Sartre, Merleau-Ponty, but also Breton, Bataille, Klossowski, Lacan, and so many others) and not only in that generation: Althusser, Foucault, Deleuze, Lyotard all shared at least with a few others, a sort of

> active and organised allergy toward the Hegelian dialectic. They all shared this trait, of situating themselves philosophically, and they did this explicitly, *from* this rejection.[42]

However, Derrida in his preface questions the ability of plasticity thought in dialectical terms within the immanent monism of a new materialism to *explode* form, without a residue or return of theodicy within the resources of form:

> If God is dead, is it an accident? Is he dead by accident? Such an accident, would he have seen it, and seen it come—or not? Would or could he have seen it come in this sense (foresight) or in this other sense (unexpectedness of the plasticity inherent to the expression "to see (what is) coming"? If this accident becomes essential, the expression "to see (what is) coming" would have been the future anterior of some sort of providence or of theodicy . . . no more explosive surprise, no more letting come, farewell to the future! For the future to have a future, and because God himself remains still to come, should not his death, if it has ever taken place, be *purely* accidental?[43]

For the future to have a future, we must abandon any seeing, any essentialising sublation, that closes off the absolute surprise of the event. Much of Malabou's later work may be seen as a response to this question of whether plasticity can truly explode form.

Let us return to the nature of the Hegelian Absolute, given its social and political import, as argued by Rose. How do Bookchin and Malabou treat this question? Again, I do not think Bookchin resolves what appears to be an ambiguity and perhaps an ambivalence between the Kantian understanding and Hegel's speculative approach. He wants to divest his dialectical naturalism of 'theological trappings' and the need for a 'ghostly' Spirit or *Geist*. At the same time, he wants to

mobilise the speculative moment of the dialectic in order to surmount 'reductionist' science. Bookchin does not attempt, in my mind, a thorough reading of the Hegelian Absolute.

Malabou does offer such a reading in her *The Future of Hegel.* Her reading of the Hegelian system is structured around questions of temporality that can provide a future for Hegel's thought. We have already noted the way in which she contests Heidegger's claim that the Hegelian Absolute is a 'farewell to time on the road to eternity'. She also quotes Bernard Bourgeois, who asserts:

> In substance, Hegel is saying: "*History, in principle, is over".* Of course things will continue to happen, but they will not relate the universal meaning of human life: in this area, nothing new or fundamentally important will be said.[44]

For Malabou, the moment of Absolute Knowledge, does not mark the end of meaningful new appearances, but announces a new temporality born from the synthesis of Greek and Christian times, a time characterised by *telos* and the preserving role of habit is brought together with a temporality of sequential exposure to accidents, and comprehended by philosophical reflection.

Unlike with art and religion, in philosophy, 'form determines itself to content', in a manner that Malabou identifies as a 'new era of plasticity'. She follows the process leading to the moment of absolute knowledge through a reading of the three syllogisms that Hegel presents in his exposition of the absolute Idea in the *Science of Logic.*

In its process of individuation, thought determines and embodies itself, just as in life, just as with an embryonic [epigenetic] development, in its exposure and 'projection' into contingency and alterity. Hegelian 'spirit' does not mean a ghostly or ethereal substance, but rather the gathering together of logical abstraction with its logical necessity, and natural contingency—categories and

sensuous forms. Spirit takes on different positions in relation to what we can think of as the epigenetic growth of rationality and of natural life.

The first syllogism of Logic-Nature-Spirit corresponds to the education of spirit in the passage of the idealities of abstract thought to the externality and contingency of life. For the speculative to be effective, it must be incorporated into a sensuous existence. The second syllogism of Nature-Spirit-Logic correlates with the moment in which philosophical reflection negates the determinacy of its initial positions and moves toward a relatively free and universal position, subjectivity emerges as the capacity to think for oneself. However, thought remains over against its world, confronting the object it is supposed to figure, as in a Greek statue, or represent, as in religious allegory. The third syllogism provides spirit with its 'own proper and determinate being':

> The third syllogism is the Idea of philosophy, which has *self-knowing reason*, the absolutely universal, for its *middle* term: a middle, which divides itself into spirit and nature, making the former its presupposition, as process of the Idea's subjective activity, and the latter its universal extreme, as process of the objectively and implicitly existing Idea.[45]

Philosophical reflection at this stage renounces rigidity and 'freely opens itself to nature and to natural existence'. This stage conceived historically would be that of dialectically overcoming the rigidity of the Kantian understanding, as a stark opposition between subject and object. Malabou emphasises that the dialectical process of 'simplification', or suppression-preservation, is also one ultimately of abrogation or releasing of the self, the I=I of mastery. As with her reading of an epigenesis of reason in *Before Tomorrow,* a multiple and mobile perspective emerges, one that effects the capacity for a reciprocal mirroring. There is no prior or 'underground' genetic foundation. The system itself becomes the subject. Hegel introduces the dialectical moment of negativity and becoming

into both the Aristotelian prime mover, and the Christian conception of God or ultimate being. Dialectical simplification releases potential energy, as being continues to form itself systematically.

This becoming does not end with a fixed universal absolute. The *aufhebung* of the Hegelian dialectic is itself susceptible to transformation, according to Malabou. It 'evolves as a term', meaning the circularity of the dialectical process does not result in a vicious circle of a 'bad infinity' or an arbitrary stoppage. As with natural evolution, epigenetic rationality continues to grow. Contingency and necessity support one another, as Malabou writes: 'It would be futile to want to determine some ontological priority of essence over accident, or accident over essence, for their co-implication is primary'.[46] This dynamic universality allows a philosophy of the singular event to emerge in Hegel. Malabou describes the liberation of energy and the dynamic of mobile perspectives as a space not of confrontation but of difference:

> According to Hegel, there is an energy produced when the determinatenesses—the forms of what occurs—come into being, and that energy has always remained imprisoned. In the chapter on Absolute Knowledge' he shows that the moments shown are not to be conceived as static but rather as 'pure motions', which 'impel themselves forward'. . . . the teleological structure ends by reversing its course, in that the forms already actualised discharge their potential energy and consequently liberate future possibilities of actualisation. Distributed in this way, the individuals are ready to engage again, in new constructions, new readings, new thoughts.[47]

Malabou's reading of Hegel is an intellectual *tour de force* that opens a space for contingency and alterity, as well as for the unforeseen event. The plasticity that structures and explodes the moments of Hegel's system reveals a dialectical unfolding that is decidedly not a return of the same.

Freeing theory from the rigidity of the Kantian understanding has important implications for issues of universality and ethics, in terms of an ethical approach that is more Hegelian than the universal categorical imperatives of Kant, issues I explore in the next chapter.

A Social Ecology Response

How does this plastic reading of the dialectic relate to social ecology's effort to 'ecologise' the dialectic? One of Bookchin's presuppositions is the alternative pathway to Kantianism opened up by Hegel's richly dialectical approach. Bookchin ecologises the Hegelian dialectic by emphasising that humanity is constituted by the capacities developed in the process of natural evolution to create a 'second nature' or a uniquely human culture with a wide variety of human communities, technics, richly symbolic languages, and carefully managed sources of nutriment. This ecologised dialectic overcomes both dualism in all its forms, and a monism that would collapse first nature into second nature or second nature into first. Both dualisms and monisms accept domination: Marxism and liberalism envision the project of domination of nature by humanity, while proponents of 'natural law' and a 'misanthropic' biocentrism attempt to invert this relation of domination. Dialectical naturalism envisions the possibility of the creation of a 'third nature' wherein humanity would live in harmony with itself and the natural world.

Bookchin considers what we are obliged to modify in the dialectical philosophy of Aristotle and Kant to render it an ecological mode of thought. He affirms first that an ecological dialectic shares the movement of classical dialectical philosophy from an undifferentiated abstract towards a highly differentiated concrete. Dialectic 'picks up the thread' of classical eduction and goes beyond it, moving from that which is implicit in bare potentiality to its realisation in a fully articulated actuality. Bookchin quotes G.R.G. Mure formulations of Aristotle's thought:

> A conception of substance or the real, as the goal toward which develops a potential being that, save as ultimately realized is neither real nor intelligible, dominates the whole course of Aristotle's speculation. . . . Follow him as he applies it in every sphere which he investigates; watch it grow from this initial abstract formula into a concrete universe of thought; and you may hope to grasp the essential meaning of his philosophy.[48]

Bookchin comments that Hegel's elaboration of this Aristotelian movement is more subjectivised and informed, although 'at times cluttered by the mountain of problematics that had been added to Western philosophy since Aristotle's time'.[49]

Bookchin observes that Aristotle and Hegel did not of course work with an evolutionary theory of nature but saw the natural world more as a scala naturae, a ladder of Being, rather than as a continuum. Influenced by the Platonic tradition more than is generally apparent or acknowledged, according to Bookchin, Hegel's dialectic moves within a realm of ideas rather than within the existential details of nature. The Hegelian dialectic further emphasises concepts over history, however historical it invariably remains. The overarching teleology of Aristotle and Hegel tends as well to subordinate the 'contingency, spontaneity, and creativity that mark natural phenomena'.

Bookchin notes that English translations of Hegel often erroneously render *real* and *actual* as synonyms, leading to the notorious inference that for Hegel, everything that is real in the sense of 'given' is *actual* in the sense of manifesting an actualisation of its potential. Bookchin insists on using the term 'real' in the sense of the 'brute fact' of the given existential 'is' of common sense, and 'actuality' in its more accurately Hegelian sense of the 'almost momentary culmination of maturity, so

that the objectivity of the potential, which is crucial for an objective ethics, is subordinated to its actualization'.

Bookchin emphasises that an ecological dialectic is not mere change but also development, not mere motion but also derivation, not mere process, but also mediation; and is cumulative not merely continuous. An ecological dialectic is in-formed by an immanent self-directiveness and an entelechial eduction of the potential into the actual, revealing 'a remarkable notion of causality'. Bookchin warns against the reduction of ecological philosophy into 'a mere husk that our current flock of "eco"-faddists can reduce to "kinetics", "dynamics", "fluctuations", and "feedback loops"—the same mechanistic verbiage with which systems theory dresses itself up as a developmental philosophy'. He quotes a passage from Hegel to underscore that dialectics is not mere change.

> That which is implicit comes into existence, it certainly passes into change, yet it *remains one and the same* . . . The plant, for example, does not lose itself in mere indefinite change. From the germ much is produced when at first nothing was to be seen; but the whole of what is brought forth, if not developed, is yet hidden and ideally contained within itself. The principle of *projection into existence* is that the germ cannot remain merely implicit, but is impelled toward development, since it presents the contradiction of being only implicitly and yet not desiring to be so.[50]

Scientific reductionism is useful in explaining life as a physico-chemical phenomenon; it is 'no substitute for the multitude of forms, relationships, processes, and environments that the organic creates for itself as it metabolically sustains its own "selfhood" in distinction from other "selves". Systems theory enters into reductionism by dissolving the evolving subjective element when life-forms begin to

exercise choice as they move beyond self-maintenance to the striving activity that ultimately yields mind, will, and the potentiality for freedom. In systems theory, the subjective dimensions of biological phenomena are dissolved into mathematical symbols that permit evolutionary interaction and subjective development to be taken over by the 'system', just as the individual, the family, and the community are destructured into the 'system' embodied by the corporation and the state.

To eliminate or obscure the logic of development is to misunderstand the nature of the dialectic as well as the dialectic of nature; the dialectic explicates a rationally developmental phenomenon, just as systems theory explicates the workings of a fluctuating and cyclical system. Conventional forms of logic and pragmatic experience are generally more appropriate for most engineering problems. The validity of dialectical reasoning is verified by attention to developmental rather than to relatively static or even fluctuating factors. It distorts the meaning of dialectic to speak of it as a method.

Bookchin emphasises that dialectical speculation is *projective,* though he does not display the concern of Derridean deconstruction with the absolutely un-anticipatable horizon of the "event":

> Dialectical speculation, despite Hegel's own view of the retrospective function of philosophy, is *projective* in a sharply critical sense (quite unlike "futurology", which dissolves the future by making it a mere extrapolation of the present). In its restless critique of reality, we can call dialectic a "negative philosophy"—in contrast, I should add, to Adorno's nihilism or "negative dialectics". By the same token, speculation is creative in that it ceaselessly contrasts the free, rational, and moral actuality of "what-could-be", which inheres in nature's thrust toward self-reflexivity, with the existential reality of "what-is". Speculation can ask "why" (not only "how") the real has become the irrational—indeed, the inhuman and anti-ecological—precisely because

> dialectic alone is capable of grounding an ecological ethics in the potential, that is, in its objective possibilities for the realization of reason and truth.[51]

Social-Political Dimensions of the Dialectic

In terms of its social, ethical, and political dimensions, Bookchin's dialectic begins with the profound negative moment of opposition to social hierarchy *as such,* as well as to opportunistic and meliorative efforts that fail to challenge the reproduction of a capitalist order that perpetuates diverse forms of domination and oppression in its various and interconnected and dispersed forms, whether characterised as neo-liberal, 'disaster', 'casino', or 'mobster' capitalism, all of which point to increasing metastases of a social and political malignancy. Dialectic is linked with this essential negative moment, and the possibility of a way of philosophical, ethical, and political thought that describes growth—the growth of the sense of real, concretely articulated alternatives and agential capacities capable of moving beyond 'growth' in the sense of the 'grow or die' dynamic of capitalism.

Malabou in her treatment of the historical and political dimensions of the dialectic in *What Should We Do with Our Brain?* foreshadows her treatment of the epigenetic model of rationality in *Before Tomorrow.* As we have seen, she analyses Foucault's writings on the Kantian Transcendental in the latter work in terms of a certain irreducible element he ultimately admits, even as he breaks the continuity between formal and historical structures by distinguishing the 'formal *a priori'* and the 'historical *a priori'* She sees this irreducible element as supported by not only professed neo-Kantian but also by most Continental philosophers for 'the residual existence of meaning as that which does not allow itself to be assimilated to any empirical determination'. Paradoxically, she observes, this residual element creates an increased rigidity and even a certain version of preformation to the Transcendental as a preformed instance that does not differentiate, something that implies a stasis to its

temporal mobility and to its growth, its economy of transformability. Overcoming this residual element of a rigid rather than an epigenetic notion of meaning and rationality furthers an epigenetic model of rationality offers theoretical resources to social ecology as an account of transformation—transformation that can take dialectical forms. Such dialectical transformation must then be linked explicitly and politically to the creation of the 'real, concretely articulated alternatives and agential capacities' referred to previously. Next, I return to the issue of addressing a problematic of conceiving the dialectic within contemporary thought.

Restaging the dialectic

In his study of the modern dialectic Andrew J. Douglas offers another perspective from which to view John Clark's critique of the dialectic in Bookchin.[52] Clark is correct to insist on the increased complexity of a dialectical treatment of necessity and contingency, identity and alterity as it encounters the symbolic realm of the social and political. He is also correct to point out the limitations of a dialectic based on the idea of a simple unfolding of what is already there. However, two ideas—his dismissal of Bookchin's naturalism and his contention that Bookchin's obsession with a world he tries to will into existence led him to regard present reality with contempt—are more problematic, to say the least. Bookchin does not dismiss the present of the natural world, however conceived. Instead, he seeks to illuminate the fecundity and richness of the natural world, and mobilise reflection on natural evolution towards a future in which humanity would be able to foster it with increasingly knowledge and appreciation, to the extent that social hierarchy and oppression and the 'grow or die' logic of capitalism would be sufficiently overcome to accomplish such a stewardship consistently and

effectively. He begins indeed with a profound negation of current social and political reality; but so, arguably, does all dialectic that seeks to change the world and not merely describe it.

It is unfair to accuse Bookchin of not addressing the complexity of forces involved in a social dialectic, or to say that his approach is excessively voluntaristic. His nuanced historical analysis of capitalism as only one of several possible forms of social and political organization from the fifteenth to the eighteenth century is important in challenging the naturalisation or *telos* of capitalism—even in Marxist thought—in terms of the myth of its historical inevitability.

In many ways, Bookchin gestures towards a comprehensive dialectic rather than demonstrating one in terms of a single system. As previously acknowledged, speculative absolute knowing can never be a possession, a doctrine, or—as deconstruction has shown—a pre-*script*-ion. Speculative knowing must wait on experience; it calls for a phenomenology. Because of this previously acknowledged complexity of a dialectic that spans nature, society, history and politics, there cannot be one all-encompassing successor to the Hegelian or Marxist dialectic. There can, however, be a reclaiming of the critical and 'rhetorical' possibilities of multiple forms and instances of dialectical thinking.

Douglas characterises the many ambiguities and challenges facing a revitalisation of a radical and critical dialectic in the current intellectual context. In reviewing the foundation of the modern dialectic in Hegel and Marx, he uses the terminology of the classic drama to identify the way in which the 'comic' dimension of dialectic, including its staging of a process of reconciliation and rational and practical triumph, is less resonant for an age permeated by various forms of scepticism—much of it aimed philosophically at the limitations of the dialectic. He argues that the tragic dimensions of dialectic are thrown into bold relief, however, when we focus on individual struggles for autonomy. He foregrounds again the Hegelian development and transformation of the Kantian critical project, a focus crucial for Bookchin's thought as well.

For Hegel, just as much as for Kant and Foucault, autonomy requires the courage to think for ourselves. According to Hegel, 'Scepticism is the actual experience of what freedom of thought is". This does not mean a mere 'shilly-shallying about this or that presumed truth, followed by a return to that truth again, after the doubt has been appropriately dispelled'. Rather, it involves the embrace of the existentially disturbing fact that our 'understanding' (*Verstand),* which holds fixed determinations, is constantly challenged by our 'reason' (*Vernunft),* which 'is negative and dialectical'. In a constantly changing world, with the clash of contrary ethical and political determinations, any autonomous and sustainably reasonable determination requires a struggle, and ultimately a synthesis with that which lies outside of a particular or immediate determination of the understanding. The struggle towards autonomous thinking and being requires a becoming that 'spoils its own limited satisfaction', in which 'thought troubles thoughtlessness, and its own unrest disturbs its inertia'. For Hegel, this puts us not on the path of doubt, but on the 'way of despair [*Verzweiflung*]'.[52]

For Hegel, dialectic includes more than the process of negation as seen from the perspective of the understanding. In its broader sense, it also incorporates the speculative, positive form of reason, or 'concrete comprehension'. However, the long and complex history of both pro- and anti-Hegelianism has tended to highlight the 'comic' dimension of the dialectic, its speculative accomplishment. As Douglas notes, quoting Katrin Pahl, 'most readers prefer a happy ending to the path of despair'. But the risk here is that 'they lose the sense of despair by integrating it quickly into an economy of sacrifice or into the machinery of teleology'.[53] For Douglas, this suggests a move to the way the modern dialectic brings its tragic dimensions into focus by emphasising lived experience—it is more difficult for those who actually struggle to win autonomy to take the serenity of observational distance and "laugh it off".

In this respect, I suggest that an important consideration in terms of the ethical project of social ecology is an appreciation of ethics not only as a statement of determined positions, as for example, principles of compensation, *usufruct,* the "irreducible minimum", and so forth—but how these emerge in the process of a dialectic of lived experience. This could be seen as a move from a more Kantian deontological ethics (ironically, given Bookchin's dismissive comments on Kant), to a more authentically Hegelian ethical sensibility. The close articulation of ethics and politics in social ecology evokes a public realm in which objectivity comes to the fore, as previously noted in relation to Hannah Arendt's thought. Yet it is vital that this objectivity also include the subjective structures and dimensions of experience so richly explored in Hegel's phenomenology and ethics.

A key part of Douglas' efforts to restage the dialectic is his insightful discussion of the challenge to the dialectical project presented by 'the other great theorist of the tragic in Nineteenth Century Germany', Nietzsche, as well as his 'poststructuralist progeny'. Douglas does not merely present another episode of a now-dated polemic between Continental philosophy and allegedly more straightforward political approaches. Rather, he welcomes and skilfully responds to the challenges represented by Nietzsche's thought.

Nietzsche responded to the tragic defeat of various historical manifestations of 'ontotheology', whether in its more traditional theological form of the term originated by Kant, or in its Heideggerian form as the critique of the metaphysics of presence, as an occasion to question the very notion of rational self-mastery—the pursuit of rational truth as an instrument of divine, natural, or human purpose. For Nietzsche, the world just is a place of uncontrollable chaos, better understood as a morally unaccountable game than a site capable of being gathered together into a rationally coherent system—a world marked by precarious relationships of power and powerlessness, domination and

submission. The sheer abundance of life exceeds rational determination, and such an effort in its ascetic discipline is not only destined to tragic failure, but is normatively misguided, in the sense that it denies the creative energies of life, creative energies that, especially for Nietzsche, manifest through artistic expression.

Nietzsche's thought may demonstrate a loosely dialectical movement that critics like Walter Kaufmann view as a more radical dialectic of worldly becoming that goes beyond a 'mere' dialectic of reason. Indeed, the dialectic of reason is more precisely Nietzsche's target. He presents two concerns about dialectical reason: its logic of contradiction and its speculative conclusions.

Regarding the first challenge, Nietzche claims 'there are no opposites, except in the customary exaggeration of metaphysical interpretation'. Dialectical contradiction is one more attempt to colonise the vitality of life and reduce its worldly complexity to a manageable coherence. For example, binary oppositions such as that of gender cannot account for other gendered possibilities—an issue deconstruction has constructively explored, from Derrida, to Judith Butler, to Malabou. We must avoid fitting new realities into old schemes. Douglas there welcomes this critique of the logic of contradiction. He quotes Diana Coole, who writes, 'it is Nietzsche who sets becoming free from the synthetic march of the dialectic'. He also quotes Foucault, who rejects the 'sterilizing constraints of the dialectic'. However, Douglas suggests that this critique tends to shift the focus away from the political. He quotes Coole further, 'although this shift is not devoid of political implications, it does generally move the explicit focus of critique from one of changing the real to a question of philosophy's own standing'. The implication is that we need to challenge the too interventionist relationship between theory and practice; take a step back and make room for a more immediate

embrace of the world and of difference. Douglas reflects on this tendency and this implication as follows:

> But the problem here is that, in pursuing such an objective, in shifting the focus toward a kind of ontological project, we threaten to let in through the back door a more affirmative political posture, something not unlike what Nietzsche, in his very *least* critical moment, refers to as *amor fati*, a kind of self-satisfactory embrace of the world just as it is.[54]

John Clark accuses Bookchin of failing to 'tarry with the negative' in his dialectic on the one hand, and on the other, of being too negative toward the presently existing world. Clark asserts that 'In truth, existent reality has much more truth, more value, and more reality than does the imaginary truth he depicts as "true reality"'. In this comment Clark exhibits the two concerns that Douglas articulates in relation to the critique of the dialectic, both a form of *amor fati* combined with an all-too-common distortion of the speculative dimensions of dialectical reason.

Douglas explores the latter concern in terms of an analysis of Hegel's famous (and notorious) claim that 'What is rational is actual and what is actual is rational'. Bookchin, to reiterate, repeatedly emphasised the speculative meaning of this statement in terms similar to those Douglas uses. The import of the statement turns on the speculative identification of the rational and the real. Douglas quotes Gillian Rose: 'To read a proposition "speculatively" means that the identity which is affirmed between subject and predicate is seen equally to affirm a lack of identity between subject and predicate'. The identity is a different kind that 'must be understood as a result to be achieved'. Hegel is attempting

to capture a sense of the complex interplay between reason and extant reality, as a reality to be achieved that emerges as an important resource for social and political criticism. Douglas adds,

> To put it in the terms that we have been developing, we can say that the limited and partial nature of the understanding must be exposed, brought to consciousness, subject to the negative energy of dialectical reason. Marcuse captures the general point when he says that social critique in the dialectical critique in the dialectical tradition is 'motivated by the conviction that the given facts that appear to common sense as the positive index of truth are in reality the negation of truth, so that truth can only be established by their destruction'. . . . In the dialectical tradition, the rational is not simply an imagined ideal that we drum up out of thin air and impose onto reality, like some arbitrary version of what ought to be. It is important to keep in mind that for Hegel, as for Marx, . . . 'any attempt radically to separate a purely rational 'ought' from an arational 'is' leaves an 'ought' which is contentless and an 'is' which is unintelligible.[55]

In this regard, it is important to highlight Bookchin's critique of careless 'dialectic' as a mere 'ballet of ideas', as well as his efforts to recover a utopian tradition not as an imaginary or 'messianic' and unattainable ideal but a reference point for a concrete and incremental praxis. In critically assessing philosophy, history, and contemporary ideologies, and in developing his own critical and dialectical project towards enhanced dimensions of freedom, Bookchin does what Marx and Kropotkin did before him, what many thinkers have done who engage with fundamentally changing the world for the better. Bookchin believes we can learn from history, overcome the trauma of the 'dialectics of disaster' of the mid-twentieth century, and articulate and implement to the greatest extent possible given current conditions, a revolutionary project for our time, on the basis of an ecological and an ethical imperative.

He learns from Marx and from the classical Anarchists, as well as from certain aspects of radical feminist and ecological thought, and he critiques them all.

John Clark argues that Marx exhibits a genuine form of radical dialectic 'when, applying the doctrine of internal relations, he shows that interrelated phenomena, far from having some Bookchinite identity in themselves, are dialectically "identical", generating one another and indeed having no identity apart from one another'. Bookchin does not see the dialectical phenomena as maintaining a fixed self-identity, but neither does he see them lost in a process of 'mere change'. Regardless of the doctrine of 'internal relations', the limits and trajectory of such a Marxist dialectic are defined by the initial categories, which do not completely lose their identity, however much their meaning may be transformed; otherwise, efforts such as Kojin Karatani's rethinking of Capital-Nation-State categories designed to privilege modes of exchange over modes of production would remain incoherent. Bookchin's critique of Marx and Marxian categories is thus an important one.

In its *political* dimension, then, the dialectic is founded on a negation of the 'is' of current social conditions of reality, toward an ethical 'ought' of some kind. In addition, for this ethics to be other than one that merely sustains an accommodation to the status quo, it must be directly linked to a political project for fundamental social transformation. Marx's profound negation of the exploitative social relations of capitalism implies an ethics, but an ethics obscured by the attempt to ground the revolutionary project of Marxism in a scientific formulation in relation to economics, class struggle, and history, one that opposed the utopian socialism and anarchism of the succeeding century.

Though Bookchin certainly does not reject science, and sought scientific support for his theses regarding nature, he critiques the way in which the European Enlightenment divested the objective

cosmos of ethical meaning, a meaning he attempts to restore. But he grounded the social ecology project more on a Hegelian dialectic of self-grounding rationality than on a historical materialist dialectic conceived in empirical terms, despite the ambivalence I have alleged. The dialectic of freedom and domination in the social arena represents an arena the Enlightenment left open for an order that has meaning and a change that has purpose. He writes of the Marxist revolutionary project:

> Far more significant than Marx's belief that he had rooted socialism in science is the fact that he had rooted the "destiny" of society in science. Henceforth, "men" were to be seen (to use Marx's own words in the "Preface" to *Capital)* as the "personification of economic categories, the bearer of particular class interest", not as individuals possessed of volition and ethical purpose. They were turned into the objects of social law, a law as divested of moral meaning as Laplace's cosmic law. Science had not merely become a means for describing society but had become its fate.[56]

Summary and conclusion

In this chapter I seek to identify challenges to the dialectic as a mode of contemporary thought, especially tendencies to read the dialectic as essentialist, teleological, identitarian, and necessitarian. I argued that Malabou's work offers a thinking of the plasticity of dialectical transformation, one that articulates with emerging understandings of epigenetics, that comports well with the social ecology project of a scientific realism. Her arguments offer potential theoretical sophistication to the social ecology project of a dialectical naturalism, and even encourage an openness to their own transformation that is important in the political project of social ecology, one that, unlike in much of Continental philosophy, remains primary and explicit. I have also responded to the objections of one of

Bookchin's most persistent critics, John Clark, and endorsed Andrew J. Douglas's call for more multiple and 'tragic' stagings of the dialectic.

My concern is not to deconstruct social ecology, but to move towards a theoretical *form* of social ecology more responsive to the current historical/cultural/intellectual moment, a form in which social ecology can assume a deserved and important part of the conversation, not a discarded 'shape' of an earlier era. A dialectic conceived along the lines of an epigenesis and an epigenetic model of rationality can be assimilated to a dialectical naturalism in a *plastic reading.* Organisms in nature develop according to their own purposefulness or directness in their environmental context. Epigenetic mechanisms modify gene expression in a kind of anticipation of contingent environmental stressors, based on experience. The morphology or form of an organism as a momentary organisation can be called plastic in Malabou's sense. This involves not only the creation and reception of form, but also the capacity to annihilate form, and resist deformation, in a dialectic of self-maintenance and self-transformation. A plastic reading of the Hegelian dialectic understands the process as cumulative, accounting for natural growth, or the growth of personal and collective agency. The process of simplification makes the singularities of these cumulative changes available to the organism, as the dialectic of self-maintenance/self-transformation develops as a difference-within-continuity. This dialectical growth does not proceed seamlessly according to a teleological necessity towards a fixed (pre)destination, but across multiple gaps, fissures, and disjunctions that themselves make use of the resources of form. These disjunctions themselves reveal a contingency that allies with ecological diversity and thus with the potentiality of freedom as non- (genetic) determinancy and a diversity of natural forms that opens new evolutionary pathways.

However, to think the Hegelian dialectic and especially to think the social import of the Hegelian absolute means not only to recover the project of an adequate rationality, epigenetic or

otherwise, but also to acknowledge the actuality of social relations and the ethical community. At the core of Hegel's philosophy is the account of self-consciousness as a collective achievement, achieved in a dialogue of mutual recognition. When confronted by other self-consciousness, one's experience is that of a decentred centre. Social existence is seen phenomenologically as a process of mutual confirmations occurring through shared commitments. Hegel's philosophy requires both a logic, which Malabou explores, and a phenomenology, because actuality cannot be identified reflectively in its immediacy, a tendency of thought Hegel refers to as characteristic of abstract consciousness. Actuality must wait on experience. More specifically in material terms, absolute ethical life cannot be realised in a system of bourgeous property relations sanctioned by universal laws that assume inequality, an argument Hegel begins making in his early essays on natural law.[57]

Malabou's work offers vital resources for reauthorizing a speculative approach to nature, and for re-articulating the primacy of consciousness over language. Her work offers as well the possibility of reconstituting sophisticated notions of subjectivity that may be 'decentred' from the standpoint of a discourse complicit with white, male European hegemony, but that yet have historical agency towards a shared narrative of liberation. In addition, her work offers the possibility of generating a systematically reconstructive project of reclaiming a future, one that makes a significant move beyond what Frederick Jameson refers to as 'the prison house of language', as well as the 'political unconscious'[41] repressed by the trauma of the failed revolutions of the twentieth century and the disillusion of the New Left and indeed the Left in general in both Europe and the United States. In the following chapter, I provide a social and ethical translation of the Hegelian dialectic for our moment, in conversation with Bookchin, as a complex movement from the particularity of struggles against domination, to more collective embodiments.

Notes: Chapter 6

1. See Richard Levins and Richard Lewontin, *The Dialectical Biologist* (Cambridge, MA: Harvard University Press, 1985).

2. *Evolution in Four Dimensions*, 393.

3. John Clark, 'Domesticating the Dialectic: A Critique of Bookchin's Neo-Aristotelian Metaphysics', Capitalism Nature Socialism 19: no. 1, (2008) 82.

4. *Politics of Cosmology,* 874-5.

5. Ibid., 885.

6. *Evolution in Four Dimensions*, 404-5.

7. *Before Tomorrow*, 29-30.

8. Catherine Malabou, *The Future of Hegel: Plasticity, Temporality and Dialectic* (New York: Routledge, 2005).

9. See Evelyn Fox Keller and Helen E. Longino, eds., *Feminism and Science* (Oxford, UK: Oxford University Press, 2006).

10. Catherine Malabou, *What Should We Do with Our Brain? t*rans. Sebastian Rand (New York: Fordham University Press, 2008), 9.

11. Ibid., 71.

12. Clark, "Domesticating the Dialectic", 82.

13. Ibid., 82.

14. Ibid., 83.

15. G.W.F. Hegel Lectures on the History of Philosophy, Vol. 1, trans. E. S. Haldane and Frances H. Samson (New York: Humanities Press, 1955), 22, quoted in Murray Bookchin, *The Ecology of Freedom* (Palo Alto, CA: Cheshire Books, 1982), 285 and also in *The Philosophy of Social Ecology* (Montreal: Black Rose Books, 1990), 28, in the introduction and 171 in the concluding essay, cited in Ibid., 84.

16. Levins and Lewontin, *The Dialectical Biologist*, 276, quoted in Clark, 85.

17. 'Domesticating the Dialectic', 86.

18. Ibid., 86-7.

19. Ibid., 88.

20. Ibid., 90.

21. Ibid., 92.

22. Janet Biehl, 'Reply to John Clark's 'Domesticating the Dialectic', *Capitalism Nature Socialism* 20 No. 1 (March 2009): 120-24.

23. Ibid., 123.

24. Ibid., 124.

25. *The Dialectical Biologist,* 276.

26. *The Politics of Cosmology,* 884-5.

27. Ibid., 902-3

28. Ibid., 891.

29. Ibid., 895. The question of idealism vs. materialism in Hegel continues to be contentious, and Bookchin in *The Philosophy of Social Ecology* offers a number of comments acknowledging that Geist for Hegel is always embodied.

30. Ibid., 902.

31. Notably in *What Should We Do with Our Brain?* and her articles and interview in Brenna Bhandar and Jonathan Goldberg-Hiller, eds., *Plastic Materialities: Politics, Legality, and Metamorphosis in the Work of Catherine Malabou* (Durham, NC: Duke University Press, 2015).

32. Leo Rauch, and David Sherman, *Hegel's Phenomenology of Self-Consciousness* (Albany: State University of New York Press, 1999), 127.

33. Ibid., 164.

34. Gillian Rose, *Hegel Contra Sociology* (London: Athlone Press, 1981), 44-5.

35. Russon, *Reading Hegel's Phenomenology,* 210-220.

36. Ibid., 218.

37. Catherine Malabou, *The Future of Hegel: Plasticity, Temporality, and Dialectic* (New York: Routledge, 2005).

38. *The Future of Hegel*, 5.

39. Ibid., 8.

40. Ibid., 13.

41. Ibid., 18.

42. Jacques Derrida, preface to *The Future of Hegel,* xxv-xx.

43. Derrida, preface, xlvii.

44. *The Future of Hegel*, 11.

45. Ibid., 141.

46. Ibid., 163.

47. Ibid., 165-166.

48. Quoted in Murray Bookchin, 'Thinking Ecologically', in *The Philosophy of Social Ecology: Essays on Dialectical Naturalism* (Montreal: Black Rose Books, 1996), 123.

49. Ibid., 124.

50. Ibid., 126.

51. Ibid., 130.

52. Andrew J. Douglas, *In the Spirit of Critique: Thinking Politically in the Dialectical Tradition* (Albany: SUNY Press, 2013).

53. Ibid., 31.

54. Ibid., 36-7.

55. Ibid., 37.

56. Murray Bookchin. 'Marxism as Bourgeois Sociology', in T*oward an Ecological Society* (Montreal: Black Rose Books, 1980), 199-200. It is important to remember that Bookchin's views toward Marx and Marxism—as did all his views—continued to evolve, and I would argue that he came to appreciate Marx's dialectical approach more and more following his break with anarchism.

57. See *Hegel Contra Sociology,* 51-72.

Chapter 7: From the Particular to the General

Where then have we arrived thus far in our inquiry into the philosophy of social ecology? We have seen how Bookchin confronts some of the major ethical dilemmas facing naturalism: he strenuously denies that social hierarchy and domination could be 'naturalized' by reading them into nature. This issue certainly underlies many of the concerns of social constructionists. He opposes sociobiology for its attempt to explain human behaviour through genes, however more sophisticated were these attempts than earlier theories of social Darwinism. Bookchin's attitude towards science is complex. On the one hand, schooled by Hegel's critique of the fixed and one-sided positions of the Kantian understanding, he wants to avoid the 'reductionism' of science, and he seeks to free the revolutionary project from notions of a scientific materialism that would prescribe fixed, evolutionary stages of class conflict. As we have seen, these tensions have played out in what Stephen Vogel terms, 'the problem of nature' in Marxist critical theory, which ranges from Lukács's attempt at a more Hegelian reading of the Marxist project, to a subtle romanticism towards nature of Adorno and Marcuse in their rejection of technological rationality, to Vogel's own social constructionist formulation of an 'ethics of the built world'.

On the other hand, Bookchin seeks to avoid a semi-mystical rejection of science toward a more romanticised view of nature, acutely conscious of the way in which deep ecology philosophy and sensibility could degenerate into fascist ideology, as in the 'blood and soil' movements in Germany that formed the milieu in which Heidegger develops his 'other thought'. Rejecting what he views as the 'epistemological turn' of Kantian philosophy, he fails to reconcile fully his attempt to restore the emancipatory potential of science with the project of a dialectical naturalism, a project that would provide a grounding in nature for moving from the 'is' of scientific factual consensus to the 'ought' of

ethical judgement, to drawing from this ecological ethics to provide the basis for a new politics of direct democracy.

Malabou's epigenetic reading of the Kantian transcendental offers, I have argued, a way to think about the 'chance alliance of nature and freedom' that extends past anti-reductionism to an appreciation of the making of meaning at the surface 'contact point' of mind and world, rather than at an 'underground' authoritative code associated with the genetic. Her reading aligns with emerging scientific understandings of the importance of epigenetics in natural evolution. The 'epigenetic model of rationality' that Malabou puts forward could inform and transform a philosophy of nature in which meaning is neither imposed on nor read directly from nature, but interpreted like reading a musical score. Such an epigenetic model entails a rethinking of necessity and contingency, compatible with aspects of nature identified by Bookchin such as unity in diversity, but not with a 'hard' version of his directionality thesis that would imply a necessitarian *telos* in nature.

Malabou's epigenetic model further suggests a 'non-identitarian' dialectic, one she previously explores using different terminology within a different problematic, in her 'plastic' reading of Hegel. As delineated in the previous chapter, such a reading of dialectic resolves some stubborn ambiguities in Bookchin's presentation of the dialectic, and is compatible with a more diverse, multiple, and 'tragic' staging of the dialectic, as argued by Andrew J. Douglas.

We thus arrive at what Malabou refers to as a *plastic* rather than a deconstructive reading of Bookchin's philosophy of social ecology, in which core concepts are expanded and transformed to encourage a *relaunching* of the social ecology project in the current philosophical milieu of a new materialism, and the historical moment of an emerging municipalist politics in Rojava as well as in a more nascent form in other parts of the world.

A plastic reading of Bookchin's social ecology would expose the tensions in its core concepts and render them more sophisticated and more fluid, opening them to transformative encounters with other thought both within and outside of the Western tradition. I see tensions at various levels of social ecology theory between Bookchin's appeal to the objectivity of concepts drawn from the sciences of ecology and biology and his attempt to ecologise the Hegelian dialectical unfolding of concepts. We can broadly characterize these as conflicts or tensions between what may be termed a more Kantian Marxist position and a more speculative Hegelian approach to both the philosophy of nature, as well as to his social and ethical philosophy. In our reading of Bookchin via Malabou, we can further see these as a desire for the relative stability of an objective, necessary, and universal foundation for ethics, in its encounter with a need to re-cognise issues of contingency and diversity.

As stated previously, I cannot accept the teleological and even authoritarian implications of the 'hard' version of Bookchin's directionality thesis. This version of directionality would lean too far towards a necessitarian view of evolution, one that obscures the way in which contingency and necessity support each other throughout many levels of evolving life-forms and their ecological contexts. However, aspects of nature identified by Bookchin remain that are distinct from teleological notions of humanity as the spiritual destiny of nature, and distinct as well from a scientific scepticism that would inform a consideration of humanity as 'merely' a contingent development of evolution. Contingency and non-teleological necessity in the form of increasing self-organisation and self-directedness are both part of natural evolution as understood by social ecology, though Malabou's work on both Kant and Hegel offers as we have seen, sophisticated resources for articulating an understanding of the relation of necessity and contingency.

I therefore argue in support of two elements of the ecological ethics of social ecology. First, I argue for the objectivity and ethical import of potentiality; second, I support the assertion that nature is

fundamentally non-hierarchical, more mutualistic than competitive, and exhibits processes of self-organisation, differentiation and development with important implications for ethics and politics. However, orienting a revolutionary project based on universal and objective natural features raises important concerns regarding questions of ethnocentrism and Eurocentrism regarding the formulation of a 'universal' ethics.

This chapter forms a dialectical movement from the 'universal' to the particular and then to the *general*. I argue that social ecologists would do well to advance a more Hegelian ethics based on a phenomenology of lived experience, rather than on ethical formulations based on a problematic and relatively static notions of the 'universal'. Challenges to the universalistic claims of the Western tradition in relation to racism and colonialism illuminate the (social and community situated) implications of absolute knowing. I view these as opening the Western tradition in general and social ecology in particular to other thoughts.

This opening suggests a way of thinking about how social ecology might be transformed in its encounters with thoughts and practises from outside the Western tradition. In this regard, I look at the way in which Bhandar and Goldberg-Hiller assess the plasticity of law and its vulnerability to anti-colonial efforts, in relation to Malabou's thought. Further, I look at how a synthesis of social ecology and new materialist approaches may serve these efforts.

I then extend these insights and approaches to the question of how they can be articulated in terms of a model of will, desire, and agency that responds to the concerns raised by David Sherman in his remarks about the loss of a sense of political agency reflected in recent Continental philosophy. Leaving deconstruction, I turn to how this encounter with other thought can be seen in the philosophic encounter of Jean-Paul Sartre and Frantz Fanon. I then suggest that Linda Martín Alcoff's insights on the future of whiteness and Jane Anna Gordon and Lewis R. Gordon's notion of the *creolization* of

theory offers useful and important ways to think about how subjectivities and agencies are transformed in collective democratic struggles. The insights suggested by these approaches are highly relevant to social ecology as a counter-tradition within the West, because it engages with theories and practises from the Global South. Finally, I use examples to apply these considerations to the social ecology project of encouraging a *general* interest that is the social and ethical context for a politics of direct democracy.

From a Universal to a Hegelian ethics

Social ecology argues for an ethics based on an ecological and evolutionary development of capacities and meanings of freedom, and towards this goal, a politics that would be based not simply on need but on desire—a further elaboration of a desirable politics.[17] However, in terms of concrete efforts to articulate an ethics that would inform such a politics, social ecologists, understandably in the interests of recovering a 'general interest' of the public realm, at times have appeared to move too quickly to an ethical universalism, ignoring the particularity of struggles against domination and oppression. In this regard, social ecologists should heed Hegel's critique of Kantian ethics. Hegel emphasizes that reason does not exist independently of naturally existing, self-conscious agents.

The reason that is autonomous must always be the reason of a naturally existing, embodied agent; otherwise the self-determination of reason would have no significance for the ethical nature of a person. Embodied indigenous traditions speak of 'thinking with the heart'.[1] Indeed, a 'body' of research has emerged that speaks of the 'heart brain'[2] and the 'belly brain'[3]. Within neuroscience research, growing evidence supports the importance of affective neural pathways for the development of intelligence and rationality.[4] In fairness to Bookchin, one can find many passages in which he challenges the Cartesian notion of a disembodied subjectivity that has characterised a great deal of

Western notions of rationality. The conditioning of rationality by affectivity already points to a bridge from the *is* to the *ought*, to the extent that we cannot speak of affective human life apart from a consideration of values. This affective life has an evolutionary past that needs to be thought in terms of embodied experience.

Moral and ethical worth enter into the world of experience, and experience must be the soil and seed of ethics, rather than an alien matter upon which it is imposed. Ethical value cannot be an independently defined categorical value that can be conferred upon the world of experience; rather, it a value opened up by the fact of experience. In addition, an ethics must find ultimate political expression within an ethical community. This ethical community is the antithesis of the psychopathology of a corporate capitalist disembodied logic that would reduce all value to that of profit.

Ethics in an Anthropological Register

Bookchin looks not only to nature but also to anthropological research on indigenous societies to guide the development of a social ecology ethics. In *The Ecology of Freedom* he cites then-contemporary ethnographic research, in particular that of Dorothy Lee, as evidence of the potential for humanity to form a non-hierarchical society based on mutuality, reciprocity, and compensatory structures that go beyond principles of justice based on legalistic notions of equality.[5] These 'organic societies' demonstrate the capacity for a sharing of material goods through principles of usufruct and the irreducible minimum. Such societies demonstrate an ethos of complementarity rather than competition. Bookchin sees these principles as constituting an actualisation of human potentials, and he proceeds to investigate historically how such principles are obscured or violated in the Western tradition by the subsequent elaboration of systems of domination and oppression that lead to an 'epistemology of rule', in dialectical interaction with 'legacies of freedom'. He acknowledges that

there is much to admire in various 'alternative lines of development' of indigenous societies; but he is careful to avoid the tendency to romanticise such societies, a tendency he views as endemic to certain deep ecologists and 'eco-faddists' of his day.

A social-ecological ethics would thus draw from each of the traditions of normative ethics: from virtue ethics for its Aristotelian/Hegelian recognition of the importance of the traditions of *bildung* and *paideia* as training for public life within a politically educated community; from deontological ethics for its focus on the universal and 'general interest', beyond an individualist moralism distorted by notions of 'purity'; and from ego-altruist consequentialist approaches in their appreciation for the role of ethical examples in inspiring social and political movements. This ethics exceeds any attempt to isolate it in a separate philosophical realm by its linking of an ontology of nature, social hierarchy and domination, and a radical democratic politics. Drawing from the anarchist tradition the notion of a *prefigurative* politics, social ecology actualises ethics-politics beyond its binary opposition in contemporary thought.

> Though partly inspired by anthropological research, Bookchin's social ecology argues against a primitivism associated with some deep ecology writers who would oppose modernity in an anti-technological attempt to 'return to the Paleolithic'. Bookchin reads social history as a subversion of the balances in natural evolution, through the institutionalisation of systems of social hierarchy and domination. Nevertheless, aspects of the emergence of modern urban life are seen as actualising the potential for the development of a universal *humanitas* that can overcome the parochialism of kinship ties and the fear of the other in traditional societies.

Bookchin presents a detailed historical analysis of the dialectic of domination and emerging degrees of freedom. Examples include the resistance to the emerging nation-state in various leagues of city-states, which formed a historical alternative to the supposed telos of capitalism and the state, and the example of anarcho-syndicalist Catalonia, Spain in the years of the Spanish revolution. The latter example provides at least some evidence to refute the arguments that radically democratic forms of social organisation in political and social life can be dismissed as simply 'impractical'.

Bookchin calls for a (relatively) stable ethics informing a recovery of the public and political realm, along the lines of a radical democracy that would provide counter-institutions capable of effectively opposing the embeddedness, perpetuation, and exacerbation of hierarchy and domination within capitalism and the state. The social and political forms of the latter can be seen as profoundly anti-natural in their destruction of the spontaneous and open-ended development of human beings. Crucial for understanding and responding to current ecological crises is the historical development of gerontocracies, patriarchies, warrior societies, and class societies, resulting in the project of dominating nature—though, in fact, nature cannot be dominated, as we continue to discover.

According to Bookchin, the emergence of hierarchy and class society in settled agricultural societies cannot be explained simply through a technological determinism based on the availability of means to create and store agricultural surplus. He makes a philosophical, historical, and anthropological argument that hierarchical tendencies must have already begun to emerge in earlier societies, in order to give shape to the development of class society. Andy Price explores—and generally defends—Bookchin's arguments in this regard, as does subsequent research confirming his speculative extrapolation from the relatively few anthropological studies available at the time he was writing.[6] These sources provide support for the core social ecology insight that the attempt to dominate nature stems from the domination of human by human.

Though Bookchin premises key ethical arguments on an idea of organic society drawn from the study of indigenous communities, relatively little in social ecology writings has focused on *particular* struggles against racism and colonialism, in comparison to the substantial contributions that social ecologists have made to inequality and gender oppression in the form of its contributions to social anarchism and ecofeminism.[7] In the remainder of this chapter I raise questions of racism, colonialism,

and gender theory in the light of Malabou's work and in light of the work of Linda Martín Alcoff and Jane Anna Gordon.

The Question of Telos

To examine these issues further, I would like to construct an imagined conversation between Malabou and Bookchin on the relation between society and nature. I begin with the question of telos in nature and in society. In 'Whither Materialism? Althusser/Darwin', Malabou asserts that 'plasticity situates itself effectively at the heart of the theory of evolution'.[8] Darwinian natural selection articulates identity and difference in a particular way: Identity derives from the reproduction of selected individuals which are thus able to inscribe themselves into the stability of an identifiable type. Difference arises from variability, an 'empty point' from which forms emerge. Natural selection is ateleological, an automaticity without intention, a 'blind movement' that is 'a promise of forms never chosen in advance, of differences to come'.[9]

A natural balance emerges based on a plastic condition between the fluidity of structures on the one hand, and the selection of viable, durable forms likely to constitute a legacy or lineage on the other. The best is the fittest, but this aptitude is unpredictable; there is no 'better' in itself. Malabou is careful to refute the confusion of Darwinism and Malthusianism, explicitly guarded against by Darwin in *The Origin of Species.* Darwin most certainly did not think of natural selection as a simple quantitative dynamic governed by the ratio of the number of individuals in a population and the availability of resources.

In nature, according to Malabou's reading of natural selection, an automatic and blind equilibrium exists between identity and difference. In the human social order, identity predominates over difference, and the balance is interrupted. 'The idea of choice', she writes, 'is again entirely

absent from natural selection'. This is a questionable assertion, given the increasing evidence for the ways in which organisms create their ecological niches, by means of what Bookchin refers to as a kind of rudimentary choice. For that matter, does not humanity with its desire, will, and augmented capacities for choice, evolve from selection processes in nature?

Malabou, however, is primarily concerned with assessing the relevance of a new materialism to Althusser's claim of 'an almost completely unknown materialist tradition in the history of philosophy, . . . a materialism of the encounter, and therefore of the aleatory and of contingency'. This materialism would be a 'wholly different mode of thought' than materialisms in the rationalist tradition, including that of Marx, Engels, and Lenin, which are materialisms of necessity and teleology, or, as Althusser puts it, 'a transformed, disguised form of idealism'.[10]

Malabou's new materialism names a non-transcendental status of form in general, without any outside of the process of formation. This immanent dynamic of form is not governed by an internal tension towards a telos, one that orients and determines every self-development. Such a materialism does not presuppose any telos, reason, cause or any 'anteriority of meaning'. The structure does not precede its elements, which are then simply reproduced in order to reproduce the structure. Forms are encounters that have taken form or 'taken hold' in order to last and become necessary--where contingency is not a modality of necessity; but rather, as discussed in a previous chapter, necessity is thought as the becoming-necessary of the encounter of contingencies. As with Althusser's 'materialism of the encounter' this materialism does not start from necessity, order, causality, and meaning, but without predeterminations, from a 'point zero'.

As Malabou discusses, Althusser critiques the way in which Marx abandons an analysis of the capitalist mode of development as an aleatory encounter between the dispossessed proletariat and the 'owners of money'. This encounter aggregates different elements, becoming gradually necessary, for an

essentialist(ic)and necessitarian conception of the mode of production within the logic of the reproduction of the proletariat on an extended scale, produced by 'big industry'.

Malabou briefly discusses the ways in which social 'selection' maintains a predominance of identity over difference, in the service of the dominant ideology. Aptitude is never selected for political struggle but always instead for respecting and maintaining order. She asks, 'How can we ensure, within the realm of community and culture, the equilibrium between variation and selection, the future of difference, the promise of unexpected forms?' I can endorse the argument that leads to these questions, though not the ethical or unethical implications of Althusser's anti-essentialist critique of Marxism, wherein he cites a canon of exemplars that includes Machiavelli. There are more than enough Machiavellian aspects to politics as currently practised.

Bookchin's Response: The Social Ecology View of Natural Selection

In adapting Hegel to a naturalistic dialectic rather than to a dialectic governed by Geist, Bookchin argues for an understanding of natural evolution as non-teleological in any dualistic, vitalist, or 'spiritualised' sense. He articulates a basis for social ecology in a nature understood philosophically along the lines of Aristotle's dynamic substance, as well as an ecologised dialectic in which negativity is the moment in which one form gives way to another in an immanent process of growth or decay. He opposes any need for a spiritualisation of nature from outside, whether in the form of a deity or an animating principle such as 'Bergsonian vitalism'.

However, the increasing complexity of natural forms and ecocommunities that he observes led Bookchin to seek alternative perspectives on the process of natural evolution from the scientists of his day. As we have seen, he cited scientific support for a view of evolution that emphasized the role of cooperation as well as competition, in order to argue strenuously against the mutation of social

Darwinism into elements of a sociobiology that would naturalise the dynamic of social relations under capitalism. Further, he articulates the thesis of a participatory evolution emphasising the contextual reality of the ecology of species development. Participatory evolution highlights the role of species as they evolve in actively creating and shaping the environments in which they live, rather than merely adapting to a process of natural selection seen as a kind of perfectly balanced mechanism that could be claimed to underwrite deconstruction's ethical concerns for maintaining difference. Social ecologists argue in support of humanity's potential role in creatively overcoming social hierarchy and ecological devastation as conscious ethical and political agents arising from natural evolution—however aleatory these evolutionary processes may be. Nevertheless, for social ecologists to be successful towards these goals, I argue that they must not themselves fall prey to ideological closure based on teleological notions smuggled in as a 'tendency' in natural evolution that provides an objective, authoritative, and potentially authoritarian 'excess of identity'.

New Materialism, Law, Sovereignty, and Recognition

In this section I explore further the issues raised by Malabou in her reflections on Darwin and Althusser, foregrounding questions of identity and difference as they relate to the legal issues of sovereignty and recognition many indigenous communities confront. I will first expand the discussion of Malabou's work through a discussion of her argument in *What Should We Do With Our Brain?* Next, I bring in some of her work and responses to it that appear in the collection *Plastic Materialities.* Both of these discuss possibilities for a radical politics in relation to nature and natural processes. Finally, I return to the question of will and choice, the elements elided in Malabou's discussion of Althusser, in terms of developing a model of human agency, with the capacity to recover a future not only for Hegel but for humanity as well as for virtually all complex life on this planet.

To be fair, Malabou does not deny the emergence of transformed understandings of evolution since Darwin and their political implications; indeed, she discusses these in her thoughts elsewhere on epigenetics, on the way in which gene expression depends on epigenetic factors that play a major role in brain development and in the fashioning of individual identities. Neuronal structures are plastic—genetically programmed to develop and operate without a program, plan, determinism, or preschematisation. The brain makes itself, the brain *is* a history. In *What Should We Do With Our Brain*, Malabou writes,

> "Humans make their own history, but they do not know that they make it", says Marx, intending thereby to awaken a consciousness of historicity. In a certain way, such words apply precisely to our context and object: "Humans make their own brain, but they do not know that they make it."[11]

As discussed previously, plasticity, conceived in a certain ideology of neuroscience—as the 'flexibility' and suppleness of neuronal structures—appears to naturalise and justify the political and social organisation of neoliberal capitalism, in the form of part-time jobs, temporary contracts, flexible production, the demand for absolute mobility and adaptability. However, flexibility only names one of the registers of plasticity as thought by Malabou, the capacity to receive form. Flexibility as celebrated in this ideology lacks the resource of giving form, of the power to invent and create, as well as the power to erase and explode forms.

Malabou enunciates a kind of slogan: 'no deconstruction without materialism, but no Marxism without deconstruction'.[12] She also states that 'it is vital to pluralise Marxism'.[13] We can further pluralise the proper name for revolutionary thought in this case to bring Bookchin into the conversation.

Bookchin wants to base his revolutionary project on an Enlightenment concept of the unitary and universal human subject, which numerous thinkers have worked to deconstruct as almost inevitably white, male, and of European descent. It is not a matter of simply making social ecology concepts more flexible and open, or even 'multicultural', though I will argue later that some concepts may become 'creolized' in the broader process of working within social movements. Rather, it is a matter of problematising the universal human subject in relation to a host of questions, including those of ethics, law, and sovereignty.

Law, Sovereignty, and Recognition in Neo-Colonial Contexts

How does an ethics of spontaneity and compensation evolve within the law-based system of direct democracy that social ecology envisions? As stated in my introduction, and examined more closely in chapter 3, deconstruction offers social ecologists theoretical resources in terms of exploring concepts about ethics and law, and biological definitions of humanity. In their article, 'Law, Sovereignty, and Recognition', Brenna Bhandar and Jonathan Goldberg-Hiller explore the deconstruction of some of these concepts of ethics and law through focusing on issues of recognition—both philosophical (specifically Hegelian) and legal—in colonial encounters.[14]

According to Bhandar and Goldberg-Hiller, settler colonialism can be seen as an ongoing structure of replacement to secure land, a process that often makes use of legal, cultural, and political forms of conservation and conscription of the role of indigenous peoples, rather than outright genocide—at least in the form of mass murder—or forced relocation. The strategy of conscription plays upon the gap between the primitive and the modern, with primitivism operating as what Levi-Strauss terms a floating signifier, which organises and mobilises language, social relations, and culture. Bhandar and Goldberg-Hiller draw on Malabou's attempt to deconstruct sovereignty by highlighting

the gap between the symbolic and the biological as a floating signifier. They summarise the way in which Malabou elsewhere argues for a place of plastic transformation within the biological itself, rather than the biological assumed to be merely an ally of sovereign power in previous deconstructive attempts by Foucault, Derrida, and Agamben.

Bhandar and Goldberg-Hiller assess the plasticity of colonial law in terms of its vulnerability to anticolonial efforts. Colonial law once sustained the division between savage and civilised, and now codifies multicultural social relations that reduce indigenous peoples to one equivalent identity among many. Bhandar and Goldberg-Hiller analyze the basis on which the Supreme Court of Canada in 2002 denied treaty rights for harvesting logs to the Mi'kmaq of the eastern Canadian coast because commercial logging is not an activity that has 'logically evolved' from a 'traditional activity'. In this way, the subject of aboriginal rights becomes frozen temporally in a time prior to European settlement, since the essence of those rights is defined in relation to the moment that colonial sovereignty was asserted in order to preserve private property relations. The nature of recognition in the settler colonial context of Canada creates contradictions and disjunctures as First Nation's self-determination is ignored in favour of criteria based on Crown definitions of the community's culture prior to contact with Europeans.

Next, Bhandar and Goldberg-Hiller move to a broader consideration of the limits as well as the inescapability of the framework of recognition. As the authors note, it was Frantz Fanon in *Black Skin/White Masks*[17] who presents the most vivid and acute account of nonrecognition in the colonial context, shaped by a discourse of primitivism and biologically grounded racism. Fanon finds recognition to be impossible in the colonial context: mutual recognition would require a shattering of psychic, economic, and metaphysical worlds. Fanon's critique of the impossibilities of recognition remains important; Bhandar and Goldberg-Hiller look to a rethinking of the body and of temporality in

Malabou's new materialism as a way out of the contradictions, disjunctures, and immobilising effects of sovereign 'recognition'. As we have seen, Malabou uncovers the plasticity of temporality in Hegel's dialectical logic as a structure of anticipation—the subject is able to temporalise itself. This plasticity of temporality suggests a way of understanding how subjects confined by sovereign orders can think, act, and live according to temporalities that exceed and contradict these confines. This is relevant to legal struggles wherein indigenous people are denied access to certain lands and activities on the basis of definitions of cultural practises as these practises existed prior to the colonial assertion of sovereignty, a kind of prehistory from which courts define the ahistorical essence of aboriginal cultural difference.

In the colonial context, the bodies of settlers and the indigenous are bound in complex ways. Though they acknowledge the limitations of such generalisations, Bhandar and Goldberg-Hiller note that many indigenous peoples maintain philosophies of the body that are not limited to the human form, and that value the recognition gained among many life forms. In addition, indigenous peoples often understand the body as a collective being in contrast to the individuality assumed in Western culture and legal systems. Thus, Bhandar and Goldberg-Hiller extend their assessment of Malabou's work in relation to colonial biopolitics to indigenous conceptions of life. They argue that indigenous ontologies of a vibrant matter, which have much deeper roots than contemporary new materialism, suggest a parallel approach to a rethinking of the symbolic within the Western realm of the biological. Indigenous ontologies of the often-metamorphic interrelationships of humans with animal, plants, and landforms thereby offer a traditional location of forms of resistance to colonial biopower for native peoples dispossessed of their land and cultural traditions.[19]

Deconstruction thus occurs as anything but a static and uniform process; we have examined several layers of deconstructive practise, each with its own tendencies and areas of concern. Bhandar

and Goldberg-Hiller suggest that Malabou's thought can be useful for thinking beyond the temporal and other forms of immobility created and enforced by colonial or neo-colonial law, but that ultimately we must extend intellectual and critical recognition to indigenous ontologies in order to effect vibrant pathways of resistance against colonial biopower. How is this relevant to our inquiry into social ecology?

Social ecologists might initially resist such thinking along colonial boundaries. Again, Bookchin disdains the presumed relativism of any form of deconstruction. A social ecology reply to our discussion above might be that only a revolutionary approach could overturn the property relations that remain at the root of colonial conflicts, and only such an approach can honour not only the diagnosis but also the remedies that Fanon (and many others) call for. In the case of Fanon, these remedies certainly include the seizure of state power, the constituting of a new government, and the complete control of the economy by the people. However, these remedies also involve overcoming the 'zombification' of a static notion of traditional indigenous cultures, in which they are seen as petrified objects in a museum. If there is to be a revival of indigenous and national cultures, it must be in a revolution through which they are recognized as living. We must radically transform ourselves at all levels.[20]

Further, a revolutionary project such as that of social ecology that eschews coercion and the 'seizure of power' in favour of consolidating a prefigurative horizontal positive power from below, has all the more need to encounter diverse thought within the process of that consolidation. Peter Skafish expresses this well when he writes, "Subjects," "histories," and "truths" not belonging to the West can be listened to and understood only if the concepts (of the subject, of history, and of truth) used to interpret them are enough at the borders of metaphysics to cross them and thereby become estranged by the other".[21] Approaching and transforming the borders of the Western metaphysical tradition has been

the project of deconstruction. Bookchin approaches a border of this tradition in his concern to shed the 'theological trappings' of Hegelianism. I have asserted that the failure to explore critical issues of race and colonial relations theoretically remains a lacuna in social ecology thought. I argue that social ecology needs to confront the limitations of Hegelianism precisely at the meeting point of an other who escapes the Hegelian master-slave dialectic of recognition, because historically, this other has not been seen as fully human. New theoretical resources are needed; similar to Bhandar and Goldberg-Hiller in their article just examined, I believe that Malabou offers an important resource for opening the boundaries and borders of Western thought to their plastic transformation. Further, (and also similarly to Bhandar and Goldberg-Hiller), I believe that effective resistance to ongoing colonial and neo-colonial contexts requires 're-cognizing' intellectually, critically, legally, and politically non-Western sources as well, including indigenous ontologies. As I discuss next, however, this recognition certainly does not involve an atemporal hypostatisation of cultural forms, as often occurs in essentializing 'multi-cultural' framings of encounters between those who identify as "white" or European and members of the Global South.

Individual and Collective Agency Towards a Desirable Politics

Social ecologists argue for the potentiality of humanity to overcome hierarchy *as such* in all its manifestations, in systems of domination and oppression, and in the project of dominating nature for the benefit of those who profit most from class and other forms of domination. Essential to this redefinition of the revolutionary project is the recovery of agency as expressed within an effective social form, an actualised or politically educated and animated community in which individuality would develop in its roundedness and fullness based on non-hierarchical relationships within a vibrant and healthy community. This would not be the community of passive conformity and overt or subtle

identitarian coercion that concerns Derrida but one capable of establishing a public space of political involvement that nourishes an objectivity rooted in diversity. Such a community would provide the social context for overcoming any tendency towards individualistic voluntarism.

A rethinking of will and choice, as proposed by John H. Smith, would help show how such an agency might develop.[22] Smith claims that Derrida ignored the issue of will in Hegel, even as he deconstructed spirit in Hegel in *Glas* and Heidegger in *Of Spirit.* Smith wants to continue a deconstructive reading of will however, to the extent of maintaining the tension of opposites such as subjectivity and objectivity in political thought, rather than unifying them in a sublated and determinate 'higher concept'. This deconstructive reading of will suggests a way that social selection might retain the 'empty' or non-predetermined point within society with which Malabou addresses, while acknowledging the social ecology emphasis on the way in which societies—including non-human societies to varying degrees—are constructed on the basis of will, desire, and choice by the process of evolution itself.

Will of course is closely related to desire. I suggest that John D. Smith's efforts to reclaim will in a deconstructed subject, cited above, can be synthesised with social ecologist Chaia Heller's exploration of a dialectic of desire. This synthesis may point the way to how individual desire can transform to social desire—a 'socio-erotic'—toward a politics of desire and a desirable politics.[23] Heller's 'five fingers of desire' begin with the relatively unmediated and visceral level of *sensual* desire, predicated on a deeply relational social context from infancy. This desire is contingent upon social, cultural, and political practises and contexts, that shape the ways in which food, music, dance, or sexuality are expressed and shared. The dialectic of desire arrives through relationality to an *associative* desire, the desire to know another.

The dialectic is cumulative but non-linear: sensual desire may derive from associative desire, or associative desire can be educed from sensual desire; both convey the idea of 'feeling' a 'connection'. Association, especially as 'free association', is an important theme in anarchist and anarchist-influenced elaborations of the revolutionary project, from Peter Kropotkin to Murray Bookchin. Associative desire moves individuals to develop structures such as rotating leadership and collective ownership, which maintain healthy relationality in cooperative, non-hierarchical ways.

However, to actualise its liberatory potential fully, associative desire must activate *differentiative* desire, the desire to differentiate oneself in the context of a social group, moving from self-knowledge to making sense of the world through artistic or intellectual creative expression. Differentiative desire represents the development of identity and the expression of one's uniqueness. Heller seeks to place this desire within a context of mutual recognition, rather than in the individualistic differentiation within liberal capitalism. Non-differentiated desire characterises expressions of self-hood that 'surrender' the self to authoritarian rule.

Heller identifies *developmental* desire as the desire of the self to become unified within the diversity of its own differentiation, to discover an overriding logic that can endow our lives with meaning and wholeness, necessary for a maturation of the self. Development rounds out the idea of differentiation, adding to it the unity and coherence necessary for self-development. Heller and other social ecologists apply this understanding not only to individuals but to societies, which implies reconstructing new models of national and international 'development' beyond mere growth, an endless expansion that threatens both social and natural communities world-wide.

Exploring the fate of developmental desire within the context of social hierarchy leads to *oppositional* desire, opposition to all individuals, institutions, and ideologies that obstruct the full development of all forms of social desire. Effective opposition cannot come from critique and theory alone, but has encompassed many forms of resistance throughout history, and calls for new forms of both social and political contestation.

I suggest that the dialectic of desire presented by Heller can be ontologically grounded in Malabou's idea of feminine essence as metabolic exchange or 'passing', beyond essentialism or anti-essentialism.[24] At the same time, Bookchin's philosophy of nature, inspired in part by the philosophical focus on metabolism in nature by Hans Jonas, suggests an evolutionary context for this metabolic concept.

Heller's idealistic and utopian presentation of a dialectic of desire can be tempered by John D. Smith's emphasis on maintaining the tension of opposites, resulting in a more 'tragic' staging of the dialectic within the lived experience of communities struggling to overcome specific forms of oppression. This could occur as a deliberate intentionality that would inform a process that Heller suggests, one she calls *illustrative opposition.* This process might then help to actualise actions and movements toward the fulfilment of a revolutionary project defined as a confederal linking of self-governing municipalities based on principles of non-hierarchy and direct democracy. In addition, the process illuminates the way in which an ecological dialectic might proceed from the individual to its collective manifestation in the social and political sphere.

Illustrative opposition as elaborated by Heller unfolds in three moments. The first moment is a critical moment in which a group looks at the historical development of an issue, and evaluates what worked and what did not. The second is a reconstructive moment wherein the group begins to draw out the wider reconstructive potential and attempts to engender wider dimensions of justice around the issue. The third moment is the illustrative moment, in which ways to articulate and demonstrate the insights gained through previous moments are created collaboratively; these forms of demonstration and illustration could include a combination of pamphlets, teach-ins, public discussion groups, performances, and various forms of direct action that engage media, including alternative and social media, all designed to be visibly socio-erotic and inspire others to direct action. In addition, the first two moments of illustrative opposition could focus specifically on the ways in which socio-erotic desire is thwarted, distorted, or coopted in communities suffering from particular or intersectional forms of oppression, and then communicated creatively in the third moment. This reflective process might be especially important in bridge building between activists who identify as white, European, or European-American, and activists from the Global South.

The Creolization of Theory and Practise

What does it mean for the social ecology aim of a revolutionary project for our time to navigate such new concepts and norms between universality and particularity? How does such a project dialectically maintain and transform its structure? In 'opening to the other' for purposes of theoretical sophistication and bridge building for movement activism, I am not suggesting a weakening of the coherence of its conceptual structure, or a wholesale adoption of new concepts. I *am* suggesting that a plastic reading of these concepts inspired by Malabou renders them more open to transformation.

Further, though, as an ongoing encounter, interaction, and conversation at the levels of both theory and practice, I suggest that the *result* of such encounters can be understood in a manner close to what Lewis R. Gordon and Jane Anna Gordon refer to as *creolization.*

In discussing this process, Lewis R. Gordon makes use of Paget Henry's concept of a 'potentiated double consciousness'. This concept emerges from the way in which W.E.B. DuBois addressed the so-called Black problem—the question itself is in error, because Black people are not the problem. Black people's seeing themselves as the problem evokes a double consciousness of themselves through the eyes of those who despise them. Once this problem is identified, it leads to a new critical perspective that Paget Henry calls "potentiated double consciousness". Gordon writes,

> Potentiated double consciousness addresses the false universal claims of hegemonic societies and their dominating groups. Their particularity is hidden in the guise of their avowed universality. Seeing possibilities beyond such claims relativizes their terms through reaching beyond them . . . This fusion is a creolization at the level of knowledge that acknowledges the underlying reality of culture and practiced values.[25]

Jane Anna Gordon developed the concept of the creolization of political theory to grasp the distinctly African New World of the Caribbean.[26] This concept offers especially useful resources for thinking through what can and should constitute alternative forms of intellectual legitimacy and scholarly progress in transdisciplinary pursuits. The concept does so by revisiting Thomas Kuhn's suggestion in *The Structure of Scientific Revolutions* that cause and effect are often mistaken when determining which scholarly projects merit the designation as 'science'. Suggesting that transdisciplinary scholarship fundamentally rejects most of the conditions that constitute normal

scientific communities, Gordon turns to the ways in which creole languages have revealed the insufficiency of prior academic linguistic models by demonstrating that the multilinguistic, multiracial, and multinational region out of which they came was prototypical rather than exceptional.

As with the languages themselves, the concept of creolization, when used by creative writers and social theorists alike, offers a more rigorous descriptive account of the outcomes of the larger transnational and transoceanic processes that ushered in European modernity. In ways that offer a guide to disciplines beyond the model of identitarian, sovereign territories, they drew on varieties of scholarly resources to understand how people without prior shared histories did not exist in impermeable bubbles but were remade in relation to one another. This approach challenges the notion of a single genitive origin (as with Derrida's study of Rousseau in *Grammatology*). Finally, this theoretical approach asks whether the prefix 'trans-', shared in terms like *transnationalism, transdisciplinarity,* or *transsexuality,* should encourage us to consider whether the aim of calls for transdisciplinarity are for 'trans' to be a temporary designation and episodic challenge or a permanent orientation, as suggested by Malabou in her investigation of the ontological status of the feminine (cited previously). The discourses of trans-gender and trans-sexuality share in acknowledging the 'remarkable salience of bodies that don't seem properly to fit or express that which the trans- person feels him- or herself to be'. These discourses are illuminating for questions of transdisciplinarity. Transdisciplinarity, supported by Sandra Harding in her standpoint approach (discussed in chapter 4), is preferable to calls for interdisciplinarity, which tend to mimic the mode and politics of multiculturalism.

Creolization means treating unavoidable epistemological limitations as sites of openness, restoring subjects as value giving and meaning making. This requires thinking in multiple registers, and engaging in a plurality of intellectual heritages. Creolization also rejects post-structural or other

narrowly academic suspicions of the inevitably totalising and repressive nature of any collective aspirations. The approach recognises that there is no politics without the mobilisation of generalising identities, which may transform in the process, resulting in new identities that could not have been fully anticipated.

Gordon notes that communities identified with conceptions of indigeneity have opposed those committed to conceptions of creolization, viewing the latter as celebrating a crude anti-essentialism. She acknowledges the moments in which creolization is avoided because it seems to amount to assimilation into a colonising culture. But she argues that cultures that emerged out of colonisation and enslavement are already inescapably colonised. Indigenous communities are often asked to exemplify an unadulterated and atemporal purity as a condition of recognition, respect, and access to material resources. At the same time, the survival of indigenous communities in settler societies of the Atlantic and Pacific has required that they become among the most racially mixed of any living communities. In addition, Gordon notes that adopting and creatively altering colonial forms does not always signify compromise, as when Algerians animatedly speaking French to each other—a language they supposedly could not learn—became more threatening to the French government than the Négritude writings of Léopold Senghor and Aimé Césaire.[27]

Throwing off the Current Form of 'White' Identity

The above discussion of racism and colonialism only briefly touches on many areas that deserve further attention. An additional area, and one in which social ecologists have made important contributions, is that of resurgent anti-semitism, including anti-semitism on the left.[28] American

exceptionalism in terms of its racial lens has sometimes resulted in a focus on anti-black racism, contributing to a failure to appreciate the ways in which worsening anti-semitism or anti-Jewish racism is fuelled by the discourse of the European as well as American 'ethno-state', occurring through such figures as Richard Spencer, in sinister collaboration with the Russian ethno-nationalist Aleksandr Dugin. These racist and nationalist identity-based ideologies, seemingly legitimised in the US in the age of Trump, suggest a need to interrogate with increased urgency the meaning of white identity.

The Future of Whiteness[29] by Linda Martín Alcoff is such an attempt by one of America's most respected philosophers and scholars of race. In the present intellectual climate, and certainly in the context of an inquiry into a social ecology any attempt to explore such an issue as whiteness must contend initially with the need to argue for the meaning of identity and race as constructs and categories. Social ecologists and those sympathetic to their project have pioneered and continue to develop scientific research showing that race is not a meaningful biological or physiological category. This is where the social constructionism embodied *within* social ecology has come to the fore, constituting in effect a utopian horizon for the overcoming of racial domination and oppression.

Nevertheless, Alcoff delineates the ways in which race retains its social and political relevance. She begins with observing that any realistic account of how social categories of identity operate must acknowledge that we cannot always choose when or how our identities are politically salient. This has been recognised by and for those whose social identities have occasioned discrimination and violence, but it is also true for those whose identities are not social liabilities, such as White people.

Alcoff notes that political salience is dependent on *social* salience—otherwise, they cannot be mobilised for political ends. She argues that social identity categories such as race and ethnicity retain their social salience because they are explanatory:

1. Quoting Satya Mohanty,[30] Alcoff suggests that social identity categories are "small theories" that help explain our reactions through narratives that link group historical memory and contemporary experience. We can expose these theories to empirical tests, such as the question, "does whiteness explain cross-class allegiances among white people, or divert from better explanations"? Reformulating identity concepts in this theoretical and empirical way can help to resist biological notions of race that racists use to explain economic success, while retaining the historical and social notions of race that play a role in the persistence of multiple forms of oppression.

2. Identity categories are also material practises. Culturally specific meaning-systems play the determining role in conferring *status* differences on *perceptible* differences, as we navigate our material social worlds. This is not to say that the meanings and correlate statuses of identities are entirely determined by their materiality, but simply to warn against the idea that identities are mere illusions. Attempting to ignore entirely the distinctiveness of bodily types and appearances by promoting 'colourblindness', for example, is unrealistic. Our identities are important features of who we are, but they are not all of who we are. Alcoff quotes Pat Parker's well-known poem, 'For the White Person Who Wants to Know How To Be My Friend': 'The first thing you do is forget that I'm black. Second, you must never forget that I'm black'.[31]

3. Identity categories are a feature of collective or group subjectivity. Patterns of perceptual attunement are connected to associations with various groups. Our sensitivity to perceived slights, for example, varies with group identity. Some whites see anti-white prejudice looming whenever histories of racism are discussed, displaying extreme 'fragility' or sensitivity to real or imagined slights.

4. Identity categories are a necessary effect, at least in some cases, of historical experiences, despite individual complexities. History exerts a gravitational pull, as in the case of the history of the organisation of service work in the US along lines of racialised difference.

Alcoff argues that the category of whiteness fulfills all of the above conditions, and thus cannot be dismissed as an ideological obfuscation. She acknowledges the way in which the science debates have re-emerged more recently around activities such as writing histories of population groups, using 'junk' or non-explanatory DNA to refashion a biological conception of race, and promoting race-specific pharmacological commodities. She notes the way in which young philosophers of science have debunked the complicated methodologies bolstering these claims.

Alcoff quotes David Theo Goldberg,[33] who insists that denying that the category of race is a social construct is analogous to denying climate change. However denying the reality of race because it has a social and historical rather than a biological genealogy is also foolish, according to Goldberg. Alcoff endorses the general approach of recent critical race theory. She finds particularly compelling Michael Omi and Howard Winant's concept of 'racial formation'.[34] Their theory foregrounds the dynamic and flexible, socially embedded character of racial identities in terms of a bottom-up/top-down dialectic in which social movements of resistance play a substantial role. This approach shares

some affinities with creolization theory, in which identities are transformed in creative and unpredictable ways in democratic struggles.

Contemporary white anxiety, Alcoff argues, manifests in a quest for a resolution to its troubled form of double consciousness, a quest that has mostly taken a strongly regressive form, especially in the US as whites face demographic challenges to their majority status within the electorate. White double consciousness, however, is not simply a form of linguistic misdirection orchestrated by elites, however—it reflects an organic aspect of our current social ontology, in which popular narratives in many arenas of social life, including our educational system and our popular entertainment have exposed whites to the horrific history of white vanguardism and a historically grounded sense of shame. In assessing the possibilities of a more progressive form of resolution to white anxiety, Alcoff urges moving beyond the framing of antiracist work in terms of a merely negative agenda. Whites have a motivation to face the full-on truth of history, to avoid being duped by white nationalist narratives by displacing these with narratives that bring the actual histories into clearer focus. These narratives would include the history of white resistance to white racist regimes, and they would explain current cultural contestations in ways that vanguardist narratives cannot, and suggest new ways to make alliance and coalition.

In the process, whites may come to understand that social progress by any measure cannot be advanced or achieved by white people alone—including social ecology reconstructive aims. Whites have a motivation to live in communities in which they can hold their heads up high. Social ecologists have emphasised that ethical motivations generally outweigh economic self-interest in historical struggles for liberation, though this is not to downplay the impact of the manufactured economic insecurities that continue to be exploited by elite forces to divide those struggles. These claims can be

radicalised by social ecology in fact, by pointing to the way in which institutions of face-to-face democracy can provide public arenas in which the divisions exacerbated by online echo-chambers can be overcome in common, shared projects. The reaching toward universalising practises that are not *the* universal, as Lewis R. Gordon points out, can be allied with the social ecology notion of the general interest, and given concrete institutional space for actualisation.

The process of transformation needed, Alcoff suggests, can be seen in 'conversion narratives', as distinct from 'white savior narratives' all too commonly seen in dominant culture in the US. She recounts the story of C.P. Ellis, who gave up his leadership role in the Ku Klux Klan in Alabama, became a lifelong friend of a black woman activist as they worked together on school desegregation policy, and eventually became a union shop steward in a majority African American union. Alcoff sums up her study in this way:

> Whites who take up the challenge of ending the spread of white supremacist ideas and eroding the white material advantages still accruing, from slavery and colonialism are incorrectly understood to be "allies". They are activists in their own right coming into the movement in two ways: first, as "human beings too", as [James] Baldwin's colleague put it, and second, as white people who refuse to perpetuate the practice of white support of or apathy toward the oppression of nonwhite people. The tragedy of the United States today, as well as other white-dominated countries, is that poor people are engaged in daily battles, ideological and military, against poor people, at home and around the world. The solution will not be found in a flaccid universal humanism, nor in a pursuit of white redemption, nor in a call to a race-transcendent vision of class struggle. Rather, the solution will be found in facing the truths about who we are,

how we got here, and then developing an offensive strategy for achieving a future in which we can all find a place.[35]

Creolizing General Interest

In this thesis, I argue that one of the most crucial ways of achieving what Alcoff refers to as an 'offensive strategy' means mobilising diverse efforts toward a collective project of radical democracy, a project social ecology identifies in terms of a dialectical development of a *general interest.* Bookchin adapts the term from Rousseau's general will. Jane Anna Gordon writes of the *creolization* of this concept through her reading of Rousseau through Fanon in *Creolizing Political Theory: Reading Rousseau Through Fanon.* I argue that this elaboration of the creolizing process allows us to see how social and political identities—including whiteness—can creatively transform in the process of a collective project of a radical democracy beyond the limitations of an 'identity politics' on the one hand, and a sophisticated variant of 'colour blindness' on the other.

Bookchin interprets Rousseau in a historically nuanced way, noting his idealisation of what remained of the direct democracy of the Swiss cantonal community of his day, which was drifting increasingly toward oligarchy. Bookchin observes that Rousseau sees the classic Athenian democracy as too individualistic, even as a faction-ridden mobocracy—a view influenced by Plato and others. Rousseau thus emphasizes the need for democracy to become not a political superstructure but a way of life. His 'general will' is premised on the need for a collective substructure of sociality, responsibility, material competence, material independence, coherence, religious belief, and strong moral guidelines, strengthened by civic festivals and other traditions.

How can we envision and theorise the possibility of a general interest with those who have experienced a more problematic, conflict-ridden, and often traumatic 'social heritage'? How can such a concept as a general interest be even seriously entertained within an intellectual milieu that continues to be informed by the suspicions of 'community' and of juridical coercion evident in works such as Derrida's 'The Force of Law'? How can a general will be understood and engaged in a way that references not only the development of the concept within the Western tradition, but also in reference to the complex forms of hybridity characteristic of a global and globalized North and a Global South? What happens in this context if we seek *political* legitimacy? What would it look like? What would bring it into being?

Again, the notion of 'creolization' as advanced by Jane Anna Gordon speaks to these questions. She notes that generations of modern and contemporary political theorists from Kant to Rawls and Habermas have asked these questions, but they do so within a terrain carved out by Rousseau. She does not dismiss the concept of a general will out of a post-structuralist concern for maintaining discrete categories of difference, but endorses collective thought and action toward democratic aims.

Gordon observes that authentic acts of the general will are acts of sovereignty, conventions of the body politic with each of its members backed by their collective public force. The positions adopted by this body politic aim at a common good and general well being with which one cannot disagree without having been fundamentally misled. The general will tends towards equality; it is contrasted with the sum of the private interests and preferences, which are not eliminated but framed as secondary. The general will is the political achievement of a kind of freedom that requires a mutuality and reciprocality rooted in consent that is given and can be withdrawn.

What most defines political illegitimacy against which the general will is posited, is the 'right' of the strongest—in other words, that which equates sovereignty most commonly with force. Gordon comments that the indictment of rule by threats or physical force extends to slavery and colonisation, in which social relationships require some to lose their liberty, rights, and duties, and thus their human dignity. Against these relationships, Rousseau draws on the possibility of an accord above or beneath the warring particular interests, an accord forged by 'the total alienation of each of us to the entire community'. If everyone gives him or herself entirely, the condition placed on all is equal. If all people give themselves to a unit of which they are a part, they give themselves to themselves and not to an individual person. This unites people into a single body, and encourages them both as individuals and members of the body politic to come to each other's aid.

Gordon reiterates in her own way that the body politic created by the general will is not 'natural' and requires struggle, constant upkeep, and ongoing artistry. She notes José Ortega y Gasset's fear that modern man treated civilisation as if it grew up as spontaneously as a forest, and thus inhabited it as if primitive men in a state of nature, valorising the archaic and primitive. In her examination of Fanon's 'national consciousness' in relation to Algerian independence, Gordon comments that his formulation sustains the features that make the idea of the general will compelling while,

> if not transcending its limitations, productively reexamining them through a creolized lens. Both Rousseau and Fanon challenge the adequacy of mere proceduralism, the sense that to tally votes itself constitutes a democratic outcome, but in Fanon the general will is not discovered but authored with an emphasis on assuring that the highest of collective aspirations are thoroughly understood by everyone involved.

For Fanon, the general will is not a process of each citizen in isolation rekindling a pre-political unity, away from the influence of dogmatic and manipulative voices but instead emerges out of the deliberate seizing of power, the direct challenging of unfreedom. Those who committed to this challenge incurred risks that meant there was no turning back. Rousseau had identified how smaller, partial loyalties could develop that interfered with the formation of a truly general will. For Fanon, these run along ethnic and religious lines and indicated political failure, a retreat into a crude and narrow nationalism. This retreat is tantamount to abandoning the attempt to create genuinely postcolonial relations reliant on balancing out distributions of resources and political attention.

Fanon seeks to make the polity of Algeria its own centre without collapsing into a conservative localism that would antagonise non-Algerian Africans or suggest that independence must come from the work of the hands of the formerly colonised alone. In addition, there would need to be some kind of calculus of the restitution owed for deportation, massacres, forced labour, and slavery of the agents of capitalism used to amass and increase their wealth and power; the moral reparation of independence was not enough. After all, Europe is literally the creation of the Third World. To continue as if nothing were due, as if there was not an inversion of the relation of indebtedness of France to Algeria, would be to continue within an imperial hegemony that treats the legacies of colonialism borne out in such material discrepancies as a lamentable inevitability, the compulsions of capitalist growth.

However, anger and resentment alone cannot sustain the effort to reclaim one's humanity and agency. A constructive project of a positive hegemony needs to be created, one based on a dialectic between the shared and the different in which the formulation of difference would make the shared more rigorous, without undermining its grounds. Shared well-being for both Rousseau and Fanon

requires economic conditions not so radically unequal that political arguments must rationalise such differences as natural and necessary.

Creolization theory, again, is not a project to be aimed at but rather a recognition of the potential for the ways in which identities and material and cultural practises can be creatively transformed in ways that cannot be foreseen. The space for such complex processes is left open through letting go of commitments to theoretical closure that would impede it and obscure its recognition. Even the reification of cultural difference in terms of 'tolerant dialogue' within the approach of comparative political theory may mislead, for it may be that it is at the edges of cultures that more subterranean forms of political identification emerge, those that are *universalising* rather than universal, but that more effectively approximate universal aims.

Implications for the Theoretical Side of Praxis

What I have argued for in previous chapters is a transformation of core social ecology concepts into concepts more adequate to the suspicion toward naturalist philosophy in contemporary thought, given the widespread dissemination of social constructivist insights and approaches. In this chapter I argue that the transformation of those concepts suggested by an encounter with the materialist deconstructive ontological investigations of Malabou *also* opens them to the resources offered by anti-racist and decolonising perspectives. Such resources are crucial to forging the broad, multi-ethnic, trans-class, majoritarian movements for fundamental social and political transformation that are essential to the challenge of confronting the ecological *and* ethical imperatives of our time. Extended theoretically by two important resources, namely, the work of Linda Martín Alcoff, Jane Anna Gordon, and Lewis R. Gordon, this coming together of anti-racist and decolonising approaches within the

(transformed) explicitly anti-capitalist revolutionary and radical democratic project of social ecology could actualise an ethics-become-politics *as* the prefigurative ethical content inculcated within the particularity of movement struggles. This agential generation of content would inform the counter-institutional libertarian municipalist structures of public assemblies and other radical democratic forms envisioned by social ecology. An understanding of the creolizing dynamics and the suspension of commitments that would block or interfere with the creative aspects of this process could help as well, as suggested through Jane Anna Gordon's reading of Rousseau through Fanon.

The crucial points for me are these:

1. Libertarian municipalism or confederal democracy is not a methodology of simply establishing community assemblies and other forms. True to its Hegelian roots in social ecology philosophy, it is a way of thinking and reflecting on experience that actualizes the move from an individualist moralism to a vibrant social ethics. Movement building is essential to this actualization.

2. the social ecology project is not or can no longer be, the project of establishing a hegemony on the left, but rather, with joining in creative and unforeseen, creolizing ways with other projects that share fundamental commitments, as in the case with Ocalan and Rojava, and potentially with an increasing number of other efforts developing within their own *ethos* and according to their own trajectory in many parts of the world. This is the only way in which I can imagine the gathering of counter-hegemonic forces sufficient to overcome what can fruitfully be named both capitalism and the Western metaphysical tradition, but with the priority on the former name.

In my view, this does *not* mean uncritically stitching together an eclectic mix of theory and practice, nor endorsing a movement culture of mediating away differences. It is precisely where differences emerge, that the critical and reflective process, including self-critical scrutiny, can lead beyond dogmatic sectarianism to creative growth; however, this must include a willingness to engage within some degree of commitment to the possibility of a shared and general narrative of liberation, within an intersubjectively shared and agreed upon institutional framework that recognises and promotes the value of every voice. This can be named democracy, in its radical and direct forms. Next, I sketch out how a creolizing perspective and a transformed white identity can contribute to the realisation of such a radical democracy, a radical democracy that—extended by the social ecology project of a confederal democracy—has the potential to become a revolutionary democracy.

Creolization in Community Development Praxis

I briefly describe here aspects of creolization in two instances related to activist efforts inspired by social ecology. I hope these stories will help clarify a social ecology approach to community development, one that supplements the radicalising role that social ecologists have played in participating in various social and political movements (see final chapter). The social ecology approach to community development refers not to economistic approaches that aim to absorb communities into the mainstream of dominant culture, but to the process of providing a material social basis for the reconstructive political project of social ecology. This holistic process attempts to reintegrate all aspects of a community's life, including the social, economic, artistic, ethical, spiritual, and political dimensions seen in their interrelationships, and make them work together and reinforce each other. The community development process informed by social ecology aims to reconstruct vibrant and diverse communities able to free themselves collectively from exploitation, domination, and manipulation.

Social ecology does not propose an abstract ideal society, but rather proposes an evolving process guided by a utopian vision as a reference point for day-to-day actions. It is important to understand the way a utopian vision is understood in social ecology. Dan Chodorkoff articulates it thus:

> The utopian element in the community development process should not be misconstrued. Social ecology understands the limitations of social ecology as a blueprint, the tendency to retreat from the problems of reality into the cloud cuckoo land of abstract design. It also recognizes the power of utopia as inspiration and as a point of orientation in the day-to-day, incremental process of changing the world. It is the utopian process—holistic, participatory and integrative—that must inform the practice of community development.[59]

The concrete instance that Chodorkoff uses to illustrate the social ecology praxis of community development is one familiar to many social ecologists: the experience of the Puerto Rican community of New York City's Lower East Side in the mid-1970s, a community that became known as Loisaida. In this community, over one hundred rubble and trash-strewn vacant lots were converted by local activists to 'vest-pocket parks' with benches and green spaces, or to playgrounds with equipment made of recycled material. Other lots were turned into community gardens which grew fresh, healthy, organic produce, improving nutrition and lowering food costs for community gardeners. The gardening groups drew on and renewed the cultural traditions of the Jibaro, or Puerto Rican peasantry. One large lot was transformed into an outdoor cultural centre, La Plaza Cultural, where local musicians, poets, and theatre groups performed, helping to celebrate Loisaida's New York Puerto Rican culture. Several lots were adopted by local schools that used them as training centres where area youth received lessons in agriculture and ecology, reintroducing the natural world into this urban community. Social

ecology staff and students worked with the community, helping (among other things) to introduce the first urban use of solar energy.

Local activists and citizens of the open-space movement contested with the city for the material base of their community, the land. In most cases, they gained either legal leases or outright title to the lots. Several community land trusts were created to remove particular lots from the real estate market and to ensure their continued use as a community resource. Several youth gangs were involved in the intergenerational open-space movement, transforming their previously stigmatized members into that of active, capable agents of constructive social action. Some youth joined a cooperative formed to manufacture playground equipment from recycled items, creating jobs and incomes.

The participants in the open-space movement joined with other community activists working on health care, education, housing, and job development to coordinate and integrate their actions. Together, they formed quarterly town meetings to chart the progress of their movement, and to develop a comprehensive plan for the future of the community. An alternative grassroots planning group, the Joint Planning Council, emerged to challenge the official city plan for the Loisaida community.[60]

I briefly recount next a less far-reaching instance of community organizing in which I was involved in during the 1990s, inspired by the social ecology approach. In Los Angeles in 1993 after the riots accompanying the not-guilty verdict of police officers in the beating of Rodney King, some community activists working in South Los Angeles perceived an increased awareness among city officials and wealthy individuals in Santa Monica and other areas of the West Side of the anger and the plight of disenfranchised areas of the city. Some of us felt this increased awareness and concern offered an opening for increased support for long-suffering and neglected efforts in areas such as South

Los Angeles. We wrote a grant for a project entitled 'Project Metamorphosis' that created education in organic gardening and soil-building for youth in the community, education that would ultimately prepare them for employment with the city Department of Water and Power. The soil-building garden project brought together traditional gardening practises with gardening approaches taught by a leading figure in the organic movement in the US. This aspect of the project increased access to healthy nutrition and augmented the food independence of participants. The project brought together youth who were or had been involved in Black, Latino, and Korean gangs, helping to overcome gang rivalries and violence, and also helping bring together in a shared project neighbourhoods where hostilities and suspicions had been exacerbated by divide and conquer strategies of the dominant culture's 'community development' approaches.

The project included a mural project and the revitalisation of a community cultural centre featuring musical performances and poetry readings, bringing together many previously isolated segments of the community, as well as providing a meeting ground for community activists involved in education, health care, and other projects. These social and cultural elements exceeded the scope of the original grant, thus emerging as branches on the trunk of the originary vision. Activist organizations such as the Earth Island Institute contributed expertise and guidance. The project aimed at promoting the social, cultural, and political empowerment of South Los Angeles.[61]

My contention is that both these social ecology related instances reveal creolizing processes at their heart, evident as inclusive, democratising community development initiatives moved across boundaries of ethnicity and culture. This appears in the way older cultural traditions from the Global South are transformed within new contexts, through their encounters with dominant culture, as well as in the practises of white or European activists. The social identities of all participants—and

particularly of youth—are transformed, sometimes in relatively lasting ways. In both instances, the unfolding and enfolding of various aspects of the project exceeded anything foreseen in the initial stages. The meanings of elements of cultural tradition are re-evaluated, and these transformed traditions are embodied in new cultural forms: for example, as seen in the Nuyorican poetry movement associated with the Puerto Rican community of New York City's Lower East Side, still active at the Nuyorican Poets Café. Participants at every level gain a *creolized* understanding and appreciation of social ecology, one that suits the needs of their social, cultural, and political moment, even as that moment develops.

Community development experience and cross-cultural movement building reinforce the insight that the social ecology vision of a libertarian municipalism as the basis for a confederal democracy cannot be implemented as a pre-defined methodology following a prescribed route toward gaining political control in communities and cities and then forming confederations. Movement-building and community development activism both require attentiveness to the complex and creolizing interplay of potentialities whose development cannot be predicted in advance. Such activism requires the cultivation of a revolutionary intention somewhere between reliance on the spontaneity of the multitudes and the imposition of a doctrine—it requires a self-reflective, self-critical, and resilient intention that waits on experience. The social ecology reconstructive ethical and political project will thus continue to actualise concretely in unpredictable ways, beyond the fixed form of a simple 'implementation', but visible in the creative, unforeseen, and unforeseeable risk and adventure—yes—of the traces of a democracy to come, but at the same time of a (radical, direct, and embodied) democracy coming to be. Reconstructive community-development projects can educate participants to

the democratic *ethos* and the lived ethics of a *general interest*, as they are extended to the political realm of the entire community or municipality.

Summary

Social ecology seeks to define a revolutionary project for our time, one that thus necessarily engages issues of how to bring concrete, often-fragmented, siloed struggles against particular forms of oppression, domination, and social hierarchy created and exacerbated by capitalism into a general and shared narrative of liberation. Such a project aims at a fundamental macropolitics of transformation, one that seeks to redefine politics itself. However, such a project must overcome the mutual suspicions, internalised oppression, tendencies towards an ethos of scarcity and competition, a prevailing scepticism of universalistic or even unifying claims, and a dispirited weariness of doctrinaire revolutionary ideology. This elaboration of features of our 'post-political' moment need not be interpreted as entirely negative: the suspicion of dogmatic revolutionary claims has been part of a generally anti-authoritarian sensibility among many social movement activists.

In any case, alliances must be formed and extended, and the aims of movements radicalised. Deconstruction, new materialism, dialectics of desire, and creolization theory all could contribute to this inevitably synthetic process. Social ecologists should thoroughly appreciate the ways in which unrecognised and unacknowledged patterns of privilege and exclusion can limit the effectiveness of minimal program efforts. Increased openness to the *dialogic* process—when seen in its dynamic creolizing aspect rather than its reified identitarian aspect, as well as in the *dialectical* process—could enhance the prospects for forming alliances towards the broad movements that will remain vital for the

social ecology revolutionary project, even as fragile municipalist projects begin to emerge, as discussed in the next and concluding chapter.

Notes to Chapter 7

1. Based on an April 2017 conversation with Paul Chiyokten Wagner, of the Wsaanich (Saanich) Tribe of southern Vancouver Island, British Columbia about "thinking from the heart".

2. See Dominique Surel, MD, 'Thinking from the Heart – Heart Brain Science', 7 January, 2015, accessed 7 November, 2019, www.noeticsi.com.

3. See Adam Hadhazy, 'Think Twice: How the Gut's "Second Brain" Influences Mood and Well-Being', 12 February, 2010, accessed 7 November, 2019, www.scientificamerican.com.

4. See Antonio Demasio, *Self Comes to Mind: Constructing the Conscious Brain* (New York: Random House, 2010). See also Marco Verweig, Timothy J. Senior, Juan F. Dominguez, and Robert Turner.,'Emotion, rationality, and decision-making: how to link affective and social neuroscience with social theory', 22 September, 2015, accessed 8 November, 2019, www.ncbi.nlm.nih.gov.

5. See Murray Bookchin, *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy* (Palo Alto, CA: Cheshire Books, 1982).

6. Soon-to-be-published research and review of many other researches by David Graeber and David Wengrow challenges the notion of the emergence of social hierarchy and inequality with the so-called agricultural revolution, and thus supports Bookchin's contentions that social hierarchy developed prior to this 'revolution'. In an online article at www.eurozine.com, 2 March, 2018, entitled 'How to change the course of human history' the authors state: 'For centuries, we have been telling ourselves a simple story about the origins of social inequality. For most of their history, humans lived in tiny egalitarian bands of hunter-gatherers. Then came farming, which brought with it private property, and then the rise of cities which meant the emergence of civilisation properly speaking. Civilisation meant many bad things (war, taxes, bureaucracy, patriarchy, slavery . . .) but also made possible written literature, science, philosophy, and most other great human achievements. . . . Overwhelming evidence from archaeology, anthropology, and kindred disciplines is beginning to give us a fairly clear idea of what the last 40.000 years of human history really looked like, and in almost no way does it resemble the conventional narrative. Our species did not, in fact, spend most of its history in tiny bands; agriculture did not mark an irreversible threshold in social evolution; the first cities were often robustly egalitarian'. One of the key implications of their research is the challenge to the conventional justification for the effects of systems of domination and oppression as the inevitable result of living in any large, complex, urban, technologically sophisticated society. But as the authors note, 'egalitarian cities, even regional confederacies, are historically quite commonplace'. This challenge echoes those of Bookchin with regard not only to dominant liberal and conservative ideologies, but also to conventional Marxist theories of the progress of capitalism as necessary for the historical consolidation of the proletariat and the proletarian revolution.

7. For an account of the development of ecofeminism and social ecology contributions to this field, see Chaia Heller, *Ecology of Everyday Life: Rethinking the Desire for Nature* (Montreal: Black Rose Books, 1999), 39-68.

8. Catherine Malabou, 'Whither Materialism? Althusser/Darwin', in Brenna Bhandar and Jonathan Goldberg-Hiller, eds., *Plastic Materialities: Politics, Legality, and Metamorphosis in the Work of Catherine Malabou* (Durham, NC: Duke University Press, 2015), 47-60.

9. Ibid., 51.

10. Louis Althusser, 'The Underground Current of the Materialism of the Encounter' (1982), quoted in Ibid., 47.

11. Catherine Malabou, *What Should We Do with Our Brain? t*rans. Sebastian Rand (New York: Fordham University Press, 2008), 1.

12. Malabou, *Plastic Materialities*, 289.

13. Ibid., 291.

14. Brenna Bhandar and Jonathan Goldberg-Hiller, 'Law, Sovereignty, and Recognition', in *Plastic Materialities,* 209-232.

15. Jacques Derrida, 'Faith and Knowledge: The Two Sources of 'Religion' at the Limits of Reason Alone', in Jacques Derrida and Gianni Vattimo, eds., *Religion* (Stanford: Stanford University Press, 1998).

16. Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life* (Stanford: Stanford University Press, 1998).

17. Frantz Fanon, *Black Skin, White Masks* (New York: Grove Press, 1967).

18. Catherine Malabou and Judith Butler,'You Be My Body for Me: Body, Shape, and Plasticity in Hegel's *Phenomenology of Spirit',* in Stephen Houlgate, ed., *A Companion to Hegel* (Oxford: Blackwell Publishing Ltd., 2011).

19. Bhandar and Goldberg-Hiller, *Plastic Materialities,* 226.

20. See Drucilla Cornell, 'Afterword' to *What Fanon Said,* 146-147.

21. Peter Skafish, trans. and ed., 'Editor's Preface', in *The Heidegger Change: On the Fantastic in Philosophy* (New York: State University of New York Press, 2011), xx.

22. John D. Smith, 'Of Spirit(s) and Will(s)', in Stuart Barnett, ed., *Hegel After Derrida* (London and New York: Routledge, 1998), 64-90.

23. See *Ecology of Everyday Life: Rethinking the Desire for Nature,* 46-52.

24. See Catherine Malabou, *Changing Difference: The Feminine and the Question of Philosophy* (Malden, MA) Polity Press, 2011).

25. Lewis R. Gordon, *What Fanon Said*, 21.

26. Jane Anna Gordon, 'Creolizing as the Transdisciplinary Alternative to Intellectual Legitimacy on the Model of the "Normal Scientific Community", *Quaderna* 3 (2015), 3.

27. Ibid.

28. See Blair Taylor, 'Antisemitism and the US Left: Examining an Invisible Racism', accessed 7November, 2019, www.academia.edu.

29. Linda Martín Alcoff, *The Future of Whiteness* (Cambridge, MA: Polity Press, 2015).

30. Satya Mohanty, *Literary Theory and the Claims of History* (Ithaca, NY: Cornell University Press, 1997), referenced in ibid., 46.

31. Pat Parker, *Movement in Black* (Ann Arbor, MI: Firebrand Books, 1999), quoted in *The Future of Whiteness,* 51.

32. Kwame Anthony Appiah, *In My Father's House: Africa in the Philosophy of Culture* (New York: Oxford University Press, 1992), referenced in ibid., 61.

33. David Theo Goldberg, *Sites of Race: Conversations with Susan Searls Giroux* (Malden, MA: Polity, 2014), referenced in ibid., 62-3.

34. Michael Omi and Howard Winant, *Racial Formations in the United States: From the 1960s to the 1980s*, 2nd ed. (New York: Routledge, 1994), referenced in ibid., 63.

35. *The Future of Whiteness,* 204.

36. *In the Spirit of Critique,* 49-51.

37. Ibid., 54.

38. *What Fanon Said.*

39. Ibid., 49.

40. See Robert Bernasconi, 'Hegel at the Court of the Ashanti', in Stuart Barnett, ed. *Hegel After Derrida* (London: Routledge, 1998), 41-63.

41. Fanon quoted in *What Fanon Said,* 56.

42. *What Fanon Said*, 130.

43. Jane Anna Gordon, *Creolizing Political Theory: Reading Rousseau Through Fanon* (New York: Fordham University Press), 2014.

44. Jane Anna Gordon, 'Creolizing as the Transdisciplinary Alternative to Intellectual Legitimacy on the Model of the "Normal Scientific Community", *Quaderna* 3(2015) 3.

45. Catherine Malabou. *Changing Difference* (Malden, MA: Polity Press, 2012).

46. *Creolizing Political Theory,* 109.

47. Bookchin, *Politics of Cosmology*, 715.

48. Ibid., 715-716.

49. Ibid., 717.

50. Ibid., 714.

51. Jacques Derrida, 'Force of Law: The "Mystical Foundation of Authority'", in Drucilla Cornell, Michael Rosenfeld, and David Gray Carlson, eds., *Deconstruction and the Possibility of Justice* (London: Routledge, 1992), 3-67.

52. *Creolizing Political Theory,* 110-111.

53. Ibid., 155.

54. Ibid., 160-161.

55. Sybille Fischer, quoted in ibid., 213.

56. Susan Buck-Morss, quoted in ibid., 214.

57. *Creolizing Political Theory,* 220.

58. See 'Social Ecology and Community Development', in Dan Chodorkoff, *The Anthropology of Utopia* (Porsgrunn, Norway: New Compass Press, 2014), 17-34.

59. *Anthropology of Utopia,* 26.

60. For a concise history and account of the ongoing resistance of the Loisaida community to the destruction of garden spaces by development interests, especially during the tenure of New York

City Mayor Rudolph Giuliani, see Sarah Shearman, 'In New York City's Lower East Side, gardening is an act of resistance', 11 August, 2015, accessed 30 November 2019, www.theguardian.com.

61. As with Loisada, many of the project elements in South Los Angeles did not endure, though many gardens have and new gardens have been created, thanks to the subsequent (though not directly related) efforts of Ron Finley. See Britt Hyson, 'Gangsta Gardener Ron Finley Changes Urban Food Culture', 4 April, 2016, accessed 2 December, 2019, www.milleniamagazine.com. These instances perhaps illustrate, among other things, the importance of transforming the political and economic municipal spheres more thoroughly by a conscious municipalist *political* project capable of preserving community development gains.

Chapter 8: Bringing Life to Contemporary Politics

In this study, I have argued that Murray Bookchin's social ecology offers a crucial fourth model for addressing the threat of climate catastrophe beyond a 'shallow' or technocratic environmentalism, deep ecology, and social constructionism. As noted previously, Bookchin's social ecology has enjoyed something of a renaissance of interest recently. This renaissance can be associated initially with Andy Price's recovery of Bookchin from some of the stereotypes disseminated by deep ecologists, as discussed in Chapter 4. More recently, this interest has been stimulated more broadly by media reports on Rojava and the Kurdish freedom movement initiated by Abdullah Öcalan, who drew inspiration from Bookchin's writings, as discussed in Chapter 2.[1] I have undertaken this inquiry partly to suggest a way in which social ecology might be transformed by encounters with other thought without losing its coherence, so that social ecology might be more adequate for this new moment.

As observed in my introduction, Bookchin's previous influence reached a high point after the publication of *Post-Scarcity Anarchism* in 1971, at least in the US. In the 1970s in the US, a reconstructive vision based on politically empowered, decentralised eco-communities utilising small-scale organic food production and eco-technologies artfully adapted to local conditions held considerable appeal. With the advent of Reaganomics and neo-liberalism beginning in the 1980s, such a vision began to lose a certain credibility and feasibility. Social ecology's support within anarchist communities waned, given the individualistic and eco-primitivist direction taken by many anarchists in subsequent decades.

In this final chapter I examine Murray Bookchin's critique of 'lifestyle' anarchism and his turn to communalism. I then outline the social ecology politics of libertarian municipalism from a practical or activist perspective, and sketch the current status of this political project as it begins to actualise. Finally, I assess the potential contributions of the social ecology response to the urgent danger of

climate catastrophe, the broad threat that framed the beginning of this study. I conclude by summarising the broader contributions of a relaunched social ecology within the current historical moment.

Bookchin's turn to communalism

Bookchin's response to the direction taken by prevalent strains of anarchism in the US is first to identify his position as a *social* anarchism, and then to renounce anarchism altogether in favour of what he termed 'communalism'. He critiques the way in which the classical anarchism of Bakunin and Kropotkin, and the anarcho-syndicalism of Catalonia in the mid-1930s, are being divested of their social ideal with the ideological shift to the right, and redefined in terms of a 'Stirnerite individualism, marked by an advocacy of lifestyle changes', and an emphasis on personal *autonomy,* thereby eroding the 'socialistic core of anarchist concepts of *freedom'.* Autonomy 'focuses on the individual as the formative component and locus of society'.[3]

We might note that a suspicion of community pervades the writings not only of 'lifestyle' anarchists, but also the work of Derrida and Deleuze. A politics sensitive to issues of alterity and heterogeneity may help guard against the persistence of dogma, doxa, and various forms of parochialism in communities, as well as dogma within social movements; for these reasons, I have attempted a conversation between a materialist deconstruction and social ecology. Certainly, a broad diversity of forms of collective action are vital to any possible post-capitalist future. A politically educated community, animated through knowledge of its particular history and future goals, can augment diversity and cultural differentiation in relation to a community hegemonically captive to the atemporal 'default' ideologies of corporate capitalism, such as competitive individualism and consumerism.

If networked confederally as in the revolutionary vision of classical anarchism, these communities could also overcome issues of what is termed in post-Marxist socialist writings the 'problem of localism'. This is a sketch of what is termed the 'reconstructive vision of social ecology'. The ethical content of such an alternative structure of social and political life has been explored by social ecologists through a conscious attempt to recover the utopian tradition as a 'principle of social hope'.[4] These include historical utopian writings such as those of Robert Owen, William Morris, and Charles Fourier, as well as literary explorations such as the writings of Ursula LeGuin.[4] There has also been the emergence of a vibrant body of writings on feminist utopias.[5]

Bookchin defines his distinction between autonomy and freedom while the meaning of these terms evolves historically, in relation to his more collectively oriented notion of freedom. He argues that substantive freedom needs to be *institutionalised* along socialistic lines. He notes that the term *communalism,* relatively unsullied by historical abuse, could represent what libertarian socialists were *for,* not merely what they were against. Bookchin emphasises, in contrast even to Kropotkin, the importance of a law-based society, though these laws would not be imposed on a powerless 'mass' but determined through the participation of an activated citizenry in local assemblies confederated using principles such as mandated, recallable delegates, which would ensure political power remains at the base of the local assembly meeting in a face-to-face democracy. In addition to rights, there are also duties.

As part of his concept of rational institutional frameworks, Bookchin writes against the way in which the demand for consensus in democratic decision-making can represent the manipulation of a well-organised few who could thereby block decision making by a majority of a community. Such a process also blocks the efforts of dissenters from the majority decision to advocate reasoned and potentially persuasive disagreements openly and persistently later. He comments that such a demand

for consensus in a larger confederation could 'mutate into a Rousseauean 'general will' with a nightmare world of intellectual and psychic conformity'.[8]

Bookchin thus feels what I consider a justifiable ethical imperative to distinguish his position not only from that of deep ecology but also from certain strains of anarchism that he encounters. In speaking of the 'unbridgeable chasm' between 'lifestyle' and 'social' anarchism, however, I believe Bookchin burns bridges unnecessarily. Concerned with defining the distinctiveness of his position, his articulation of social ecology becomes increasingly isolated, failing to engage dialogically not only with activists and thinkers who might have been more receptive to social anarchism, but also with increasing concern with a 'decolonizing' praxis that began to emerge in the US in the 1980s.[9]

From Theory to Activism

My inquiry is aimed at an academic audience, one acquainted with Marxism and the revolutionary tradition, as well as those familiar with Continental philosophy, deconstruction, and the New Materialism. However, it is not aimed solely at such a readership. As a self-taught 'organic' philosopher and a life-long activist, Bookchin himself exemplifies the importance of theory for activists. The importance of philosophical discussion, dialogue, and debate well beyond the confines of academia is increasingly shared by many academics as well[10].

The relation between theory and practice is a complex issue, which I simply acknowledge here, without having the space to pursue it further, other than to cite Bookchin's comment during one of his ISE classes years ago on the distinction among a militant, a radical, and a revolutionary: a militant will become intensely active for a few years, driven by the immediate urgency of an issue; a radical will continue for five or ten years on the basis of strategic analyses of longer term prospects; and a revolutionary will continue resiliently for life on the basis of a comprehensive philosophical, historical,

social, cultural, and political inquiry into the nature of the society that must be transformed.[11] I now turn to an assessment of the current, past, and potential future role and impact of activists inspired by social ecology.

A Personal Perspective

Upon arriving at the Institute of Social Ecology (ISE) in 1988, I found much more diversity and openness in the ISE staff and generally in the community of students of social ecology than I might have anticipated, given the tenor of Bookchin's more polemical writings. Students of varying ages and ethnicities, mostly from the US but also from many parts of the world, attended such classes as bioregional agricultural, ecotechnology, community health, ecofeminism, and community development, all woven together by Murray Bookchin's lectures on social ecology. Students varied in their orientation to theory, but all shared a sense of excitement about the possibilities of ecological, social, and political reconstruction. We would emerge from a lecture in which Bookchin lambasted New Age 'mysticism' suffused with Buddhist and Taoist 'homilies', to a class taught by an avowed Buddhist.

The ISE did impart a coherent understanding of social ecology, but not in a doctrinaire fashion. I recall a conversation with Bookchin and one other student in which Murray said something to the effect of, 'I don't care if you want to practice Buddhism, shamanism, or with a Wiccan coven; I just want to insist on the right of rational thought to critique any belief, and I want any such belief to encourage activism not quietism'.[12]

I returned to the ISE in subsequent years, and from 1991 for over a decade, my wife, the noted eco-artist Beverly Naidus, and I co-taught a course there entitled 'Activist Art in Community'. In 2002 Beverly co-taught the course with the well-known activist David Solnet. A cohort of social ecology students left our course and other courses in the ISE Summer Program in the summer of 1999 and

traveled to Seattle in Washington State in the US, to engage in international networking with groups of farmers, labour groups, environmentalists, anarchists, and other radical activists in the lead-up to the meeting of the World Trade Organization Ministerial Conference at the Washington State Convention and Trade Center on 30 November, 1999. The ISE students participated in Spokescouncil meetings and formed the majority of the group that successfully pushed for the strategy of shutting the WTO meeting down entirely, thus setting the match to long-accumulating fuel that ignited what became known as the Alter-globalisation movement.

Contributions of Social Ecologists to Movements

Brian Tokar, current director of the ISE, has summarised Bookchin's and his students' contributions to social movements from the 1960s on: the efforts described in the previous chapter of ISE co-founder Dan Chodorkoff and other social ecologists, together with the largely Puerto Rican residents of the Lower East Side in New York City in the late 1970s, to pioneer the urban use of 'green energy' and animate and activate their community against the forces of displacement and gentrification. Chodorkoff has continued to write on the crucial importance of new, anti-capitalist and non-economistic models of what constitutes "community development", in contexts ranging from local to international. These contributions include the prominent role of social ecologists in the anti-nuclear movement of the late 1970s, especially the Clamshell Alliance in Vermont, which included an emphasis on bottom-up organising principles.[14] Bookchin introduced the concept of 'affinity groups', borrowed from his close study of the 'grupos de afinidad' of Spanish anarcho-syndicalism in the 1930s. Social ecologists played the major role in the formation of the Left Green Network and the Youth Greens as the Green Movement emerged in the US during the 1990s. These more radical tendencies, as well as the larger Green movement in the US, lost momentum and direction as Green moderates formed a

separate national organisation based exclusively on state-certified Green parties. In addition, I argue that a presidential campaign by Ralph Nader, a left 'celebrity' with no substantive connection to grassroots elements of the movement, further marginalised the US Greens.[15]

Social ecologists Ynestra King[16] and Chaia Heller[17]played a key role in moving the development and elaboration of ecofeminist ideas in a radical political direction rather than towards the predominantly cultural and spiritual forms in which ecofeminism evolved in the 1990s. Peter Staudenmaier, a long-time social ecologist, has emerged as one of the most articulate and scholarly voices on social ecology in relation to fascist and neo-fascist ecology movements, environmental history, and persistent attempts to recycle or devise new permutations of biological arguments in relation to racial categories.[18] Eric Toensmeier has become a widely acknowledged and respected practitioner and writer on permaculture and regenerative agriculture.[19] Cindy Milstein has become a widely read and admired author on various aspects of contemporary anarchism.[20] New Compass Press in Norway has published important writings on social ecology.[21] Brian Tokar has written extensively on social ecology and climate justice.[22] Thus I acknowledge some of those who have contributed to social ecology, but I must add an apology and disclaimer for those I have inevitably left out. I have attempted to convey the range and flavour of ongoing social ecology writing and activism.

After the WTO protests in Seattle in 1999, the ISE booklet 'Bringing Democracy Home' highlighted the writings of social ecologists on potential future directions of the movement. In the present century, social ecologists have participated in almost every major social and political movement, from Occupy in the US, to the ZAD in France, to the emergence of a climate justice movement globally, to left libertarian elements of the Gilets Jaunes movement in France, and to the Extinction Rebellion.

Less prominent both in Bookchin's writings and in those of his students, as well as in social ecology activism, has been a sustained engagement with anti-racist and anti-colonial struggles. I argue that this lacuna is a serious one, especially given its potential importance within the context of a nascent politics going under the general name of municipalism, which begins to emerge in pluralised cultural conditions, but not always with explicit acknowledgment or direct connection with Bookchin's social ecology, in contrast to such acknowledgment in the case of Rojava. This broader municipalist series of movements and formations continues to emerge rather fitfully on the margins, even in the face of the seeming exhaustion of neo-liberal globalisation and the turn to right-wing authoritarian governments in the US, UK, Europe, and Latin America.

An Emerging 'Municipalist' Movement?

In a recent and influential essay published in ROAR magazine, Yale University PhD student Alexander Kolokotronis explores the potential of municipalist politics as an ant-fascist strategy in the Trump era in the US.[23] He notes that Trump's program includes blocking federal funding to sanctuary cities, which serve as safe havens for undocumented immigrants through limiting the enforcement of anti-immigrant federal laws by non-cooperation, as well as through proactive policies such as municipal ID programs. The mayors of Seattle, San Francisco, New York City, Los Angeles, and Philadelphia have pledged that their cities will remain sanctuaries, even as Trump denies federal funding. Such cities will be forced to think creatively about how they can resist Trump's policies individually and together as a confederation of municipalities. Kolokotronis notes that city governments in San Francisco, New York City, Boston, and Chicago are funnelling resources into worker-cooperative development, as well as devolving fiscal capacity to the community through

participatory budgeting, which aids undocumented immigrants in the policy realm and in their day-to-day economic well-being.

These initiatives, however, could be pushed much further through anti-fascist coalitions. The normalisation of the word 'socialism' through the Bernie Sanders campaign in the US could help promote a libertarian socialism that seeks to create post-state and post-capitalist institutions. Kolokotronis highlights and briefly summarizes Bookchin's libertarian municipalism, as part of a broader anti-fascist strategy.[24]

Kolokotronis is not arguing that a libertarian socialist revolution similar to what is taking place in Rojava is immanent. However, he is arguing for the opportunity to create anti-fascist coalitions in collaboration with a number of groups and movements that are also looking to municipalities, movements that could stitch together policies and structures to enhance the conditions for the possible success of more maximal programs. He cites the Movements for Black Lives platform, which calls for participatory budgeting at all levels as well as for a cooperative economy. He further cites the victorious mayoral campaign of the late Chokwe Lumumba in Jackson, Mississippi, supported by the Malcolm X Grassroots Movement, a campaign explicitly based on Black self-determination and libertarian socialism. The Jackson Plan promoted by the mayor includes assemblies 'organised as expressions of participatory direct democracy'.[25]

Kolokotronis observes the increasing number of developments organised around inter-municipalism and transnational municipalism. These include the Right to the City Alliance (RTTC), which has created a progressive platform around such wide-ranging issues as the commons; economic, indigenous and environmental justice; police harassment; and migrant rights. Other programs include Sister Cities International, United Cities and Local Governments (UCLG), the Creative Cities Network, International Cities of Refuge Network (ICORN), and other efforts. Counter-power at the local level is

also being implemented in a number of cities world wide, including Porto Alegre in Brazil, Torres in Venezuela, Madrid, Barcelona, and a number of other cities in Spain.

Eleanor Finley, a social ecologist who has focused on emerging municipalist developments, recently authored an article entitled 'The New Municipal Movements'.[26] She notes the general context of organising in the US in the time of Trump discussed by Kolokotronis: under the banner of sanctuary cities, community-based organisations, faith groups, legal advocates, workers centres and engaged citizens have organised crisis networks on a neighbourhood-to-neighbourhood basis to support immigrant families living under the threat of deportation. She notes that mayors and city officials have emerged as one of Trump's most vocal opponents: In June, 2018 nearly three hundred mayors, including nine of the ten largest cities in America, recommitted to the Paris Climate Accord in defiance of his wishes.

Beyond this, Finley writes that a 'small constellation of civic platforms' have emerged that seek to transform how municipalities are actually run, aiming to return decision-making power into the hands of citizens in a conscious trajectory towards social freedom and a counter-power of confederated councils at ever larger levels that might eventually challenge state power towards a stateless democracy. Reporting on meetings with participants in projects such as Cooperation Jackson, the Seattle Neighborhood Action Councils (NAC), the Portland Assembly, the Olympia Assembly, and Genese Grill's District City Counselor campaign in Burlington, Finley comments, 'what I found most striking was their ability to articulate utopian ideas with common-sense policies aimed at actually improving people's lives. Their political aspirations are serious and grounded in the belief that popular power really can offer superior solutions to difficult social issues'. Finley notes,

> The municipalist movement in the US today is like a seedling. It is small and delicate, fresh and brimming with potential. Although we often look for leftist leadership in big cities like New York City or Chicago, these new municipal leaders are rooted in relatively smaller cities including Jackson, Mississippi and Olympia, Washington. Perhaps this shouldn't surprise us. As big cities are emptied of their original inhabitants and character, small and moderate-sized cities are offering relatively more opportunities for communal interaction and organization.[25] The social ecology vision is that these seedlings will continue to grow and confederate until they are able collectively to constitute an effective *dual power* to the capitalism and the state.[27]

Centring Racism, Colonialism, and Gender Oppression

Among the serious social issues long endemic in the US but whose visibility has heightened in opposition to and out of the extreme emergency conditions created by the Trump presidency are racism and gender-based oppression. One of my motivations for exploring Continental philosophy was the way in which Derrida and deconstruction have decentred the Western tradition and the Western subject in ways that many feminist and anti-racist theorists and activists have found useful. In the current historical and political moment in the US, it is crucial for social and political movements that have developed among predominantly white activists—including social ecology—to push their internal and external education on anti-oppression a step further. People of color activists, most often those who identify as female or as gender queer, have developed effective programs and approaches that help individuals and organisations confront sometimes-subtle forms of unrecognised racist and patriarchal patterns of behaviour.

If Derrida's deconstruction has carved gaps and traces in the Western tradition of thought, Malabou's new materialism supplies a body or form and materiality to those traces. I argue that such

efforts provide an intellectual milieu that has had and will continue to have indirect influence on movement activists as these are 'translated' into grassroots anti-racist and queer/feminist struggles, whether or not activists are reading Derrida and Malabou. As concepts are questioned close to their limits, it becomes possible for these concepts to be transformed by encounters with other thought. This does not mean that social ecology, a revolutionary counter-tradition to the conventional canon, need weaken its basic structure, as some social ecologists may fear, fostering a defensive posture. Rather, as Malabou insists 'identity, in order to endure, ought paradoxically to alter itself or accidentalize itself'.[28]

Though the seedling is growing, many questions remain. How can a libertarian municipalist movement adequately address transforming economic systems, beyond participatory budgeting? This objective involves addressing the radical democratisation of corporate structures, as well as a developing a broader post-capitalist economics. The work of Nathan Cedric Tankus, cited by Kolokotronis, in theorising a post-state monetary system consistent with confederalism, is worth a closer look. How can municipalist efforts overcome the parochialism and other limitations of localism? Here websites devoted to linking diverse efforts may play a constructive role. How can municipalist struggles avoid devolving into a mere counter-institutional methodology, ignoring the vital role of social movements in inculcating ethical sensibilities and solidarity across communities currently divided from each other? How far do community development processes need to proceed before they implement the more electoral aspects of municipalism? How essential are explicit movement links to municipalist projects? How important in the process are political organisations dedicated to libertarian municipalism? Here, there is hope in the non-hierarchical and generally non-dogmatic qualities of activists who have already learned from previous movement experience how to be effective. How can libertarian municipalists work to meet people's needs without succumbing to cooptation and reformism?

Here, social ecology with its vibrant core of inspired social and political reconstructive vision, can play an important role in maintaining a resilient and creative revolutionary intention.

A major contribution in alignment with many of the themes discussed in this study is the recent book, *Pan-African Social Ecology* by lifelong revolutionary organiser Modibo Kadalie.[29] Kadalie acknowledges a debt to Bookchin's thesis that every ecological crisis is fundamentally a social crisis, and that current ecological threats expose the inadequacies of the nation state and hierarchically organised societies and their 'antiquated' politics:

> The problem of human survival in the face of rapid and catastrophic climate change is beyond the understanding of these antiquated politics, which cannot grasp the scope of this catastrophe that by its very nature demands a new politics beyond the realm of exploitative global capitalist enterprise, zealously protected by the armed forces of completing empires. . . . Now in the twenty-first century, we can confidently say that hierarchically-organized societies cannot solve or even adequately address ecological crises. In fact, such societies—with their nation-states, empires, and capitalist markets—have shown themselves to be the cause of widespread ecological destruction.[30]

Kadalie expresses what we may call a creolized perspective on social ecology, through his organising efforts in Black communities in Detroit, Michigan, USA, and through the early influence of C. L. R. James.[31] The Pan-African social ecology he calls for is also a creolized social ecology perspective in the larger sense of creolization theory. This perspective is evident as he acknowledges Bookchin's influence on his views, yet criticises Bookchin's portrayal of the American Revolution as a social revolution similar to those that occurred in Haiti or France.[32]

A Vital Material Contribution

All of these elements will be crucial if we are to meet the ecological imperative we face. The concept of an ecological imperative, especially with regard to the threat of climate catastrophe, must not be regarded as merely rhetorical. Currently, even the 0.8 C rise in global temperature is causing widespread devastation in terms of drought, severe storms, wildfires, and flooding, leading to increased hunger, water shortages, conflict, and the destruction of habitats and many important ecological communities, such as coral reefs. We cannot assume that even the projected 2^{o} C rise given our best emission-reduction scenarios will achieve a liveable world for the majority of the world's people. The 4-6 ^{o} C rise expected from business as usual policies would almost certainly mean an uninhabitable planet for complex organisms.

Despite the undeniable urgency of the threats posed by the reality of androgenic rapid climate disruption, the rhetoric of 'crisis' and of 'emergency' (employed even by Extinction Rebellion) is not the optimal framing, I argue. Derrida exposes the way in which the language of crisis suggests the need to shore up tradition; 'emergency' can too easily suggest or be exploited as the need for short-term measures aimed at perceived symptoms, such as shutting down borders. Instead, the measured, science-based but broad reconstructive vision of social ecology towards fundamental transformation at every level of culture, society, technics, as well as a politics that intertwines the global within the local, have much to offer.

During a recent social ecology intensive program of courses, I attended a series of presentations by long-time social ecologist, friend and colleague Grace Gershuny. Grace is co-author of *The Soul of Soil* and the recent autobiographical *Organic Revolutionary: A Memoir of the Movement for Real Food, Planetary Healing, and Human Liberation.*[33] She has written extensively on soil, compost, and food-

system issues. As a staff member of the US Department of Agriculture's National Organic Program in the 1990s, she helped develop the organic regulations now in use in the US.

At her presentations, Grace introduced us to the work of Walter Jehne. Jehne is an internationally recognised climate scientist and soil microbiologist. He was one of the early researchers on glomalin, mycorrhizal fungi, and root ecology. He has focused in recent years on studying how we can reverse global warming by working with and restoring hydrology cycles and the 'soil carbon sponge'.[34]

Jehne argues that access to adequate water and food in the coming years depends on understanding, respecting, and regenerating natural processes governing the bio-systems that in turn govern our climate, health, social equity, and stability. A crucial natural process is that of pedogenesis: the microbial bio-conversion of plant exudates and detritus into stable soil carbon.

The basic idea is that reducing emissions, the main target of environmental efforts including by the Extinction Rebellion, is not enough to avert climate catastrophe. Neither would the combined effect of all projected efforts at carbon sequestration be adequate. Carbon dioxide has a half-life of hundreds of thousands of years in the atmosphere. Alternatively, what could be sufficient is restoring the earth's hydrology cycle by rebuilding the soil carbon sponge, which provides more immediate cooling, and which is key to the long-term cooling of the earth's climate. Beyond simply the increase in CO2 emissions, the soil carbon sponge and hydrology cycle have been disrupted by the destruction of the balance of carbon oxidative processes vs. drawdown rates through industrial agriculture. To restore these natural cooling processes, we urgently need to regenerate the planet's soil-carbon sponge.

One obvious area in which to regenerate the soil carbon sponge, with all its associated benefits including production of healthy food, is to increase the total areas under organic food cultivation. This has been Grace Gershuny's aim for many years, but now pursued with added urgency. She writes,

> There is huge potential to create a better society in the seeds sown by the "good food" movement, whether you resonate with Murray Bookchin's vision of a free society or with the Shambala vision of enlightened society or some combination of the two.[35]

Rebuilding the soil-carbon sponge will need to be supplemented by and coordinated with other reconstructive science-based approaches focused on biological systems designed to avert climate catastrophe, such as massive tree-planting and rainforest regeneration projects, combined with committed struggles to halt the deforestation that now exceeds current reforestation efforts. Such struggles go far beyond the defensive organising strategies described by Braun and Wainwright in the introductory chapter. In addition, regenerating marine bio-systems offers numerous benefits beyond increasing carbon dioxide drawdown potential.[36]

These approaches must be accompanied by ever more dedicated efforts to curb greenhouse gas emissions, especially carbon dioxide, and transition thoroughly away from a fossil-fuel economy to the use of renewables adapted to local scales and conditions. The social ecology reconstructive vision does not require an anti-technological return to the Palaeolithic, as imagined by some anarcho-primitivists. Smaller scale renewable energy technologies would, of course, be more compatible with the social ecology reconstructive political vision of confederated municipal assemblies, a vision championed by social ecologists since the 1970s that is more relevant than ever.

Unfortunately, many of these approaches retain a central emphasis on market approaches. Social ecologists have advanced principled and important critiques regarding relying on market-based solutions to ecological problems; these are especially relevant to the question of implementing the regeneration of the soil carbon sponge. Brian Tokar has extensively critiqued the 'transparently false' and demonstrably failed approach of market-based trading of carbon dioxide emissions. Further, Grace

Gershuny writes, ‘market incentives alone cannot bring about the revolutionary social, political, and economic changes needed to avert certain worldwide catastrophe. As I tell my students, you can’t dismantle capitalism with a marketing plan’.[37]

The Promise of a Renewed Social Ecology

Today, renewed interest in Murray Bookchin’s social ecology is occurring in the context of climate change denial and the global rise of neo-fascist movements, fuelled by racism, xenophobia, homophobia, transphobia, and multiple forms of gender oppression. Dispersed progressive and radical anti-authoritarian movements have emerged, but mainstream neoliberal parties are able to play these forces off against each other to secure their hegemony. Mainstream media and discursive space, apart from social media and other personalized and privatized sites, remains truncated, especially on the left end of the political spectrum. But in this context it is useful to recall Walter Benjamin’s comment that ‘behind every fascism, there is a failed revolution’.[38]

I believe there is a crucial need for a concrete, incremental, plausible and comprehensively articulated alternative to capitalism, one that responds to the urgent ethical and ecological imperatives we face. Indeed, various forms either directly inspired by or analogous to Bookchin’s political project of a libertarian municipalism are already under way in various locales across the planet. Hegel’s Philosophy of Right argues that revolution must accord with the habituated cultural patterns of a people. The local aspect of the social ecology vision allows for this, while also providing a means of moving past the limitations of micropolitics and the issues of localism through confederation, a political form that can perhaps be augmented in our day by the skilful employment of virtual communication capacities.

Given the current historical and political moment, it may seem hopeless and utopian in the negative sense to imagine such revolutionary transformation. The municipalist revolution will not happen in the crucial next ten years. Nevertheless, it is not impossible to conceive of an increasing dissemination in creative and effective ways (including socially engaged art practises) of the scientifically informed directions towards which we need to move.

The threats we face could be overwhelming. These threats include climate catastrophe and the attendant threats of species and habitat destruction, hunger, climate refugee crises, resource wars, the now-vivid threats of global viral pandemics, and fascist attempts to exercise authoritarian control over societies as they attempt to respond to the proliferating crises. Certainly, because of negative synergistic effects, climate change is happening a lot faster than earlier predicted. However, I believe it is still possible to recover a liveable future for humanity and for other life.

Arguing for a minimal human engagement in the natural world, and for a deeply sceptical attitude towards human agency, as many deep ecologists do, will not help us get there. Further, neither will a 'post-empirical' constructionist scepticism regarding knowledge about nature apart from the humanly built world, nor a Messianic waiting for the event of the future beyond any anticipation, accomplish this vital objective.

A majoritarian movement or confluence of movements toward fundamental social and political transformation could get us there, guided by the best scientific research, including more 'science from below' from groups who have contributed the least to climate change, but are already suffering the most. Such a movement of movements can mobilise the collective agency and inculcate the values needed for such a fundamental transformation. The libertarian municipalist revolution is not a methodology that can be applied in a volunteerist manner, but a fundamental philosophical, cultural, social, and political *becoming.* Murray Bookchin always understood this.

The approach recommended by Tokar, Kadalie, Gershuny, and others differs from a 'techno-fix' that would likely increase the need for centralised and authoritarian control. It reinforces instead the grassroots activism and network building that could lead to a radical living democracy, an anti- and ultimately post-capitalist political form that alone could create a truly ecological society. This social ecology approach recognises the linkage between global threats such as viral pandemics, and the corporate capitalist forces that destroy the carbon-storing capacities of rainforest and other essential habitats for biodiversity, increasingly forcing wildlife to invade human habitats, thus increasing the incidence of zoonotic diseases such as COVID-19.[39] The link between this viral pandemic and the need for anti-capitalist alternative is emerging.[40] In addition, critiques are being made of the capitalist growth society (in the context of COVID-19) that align with Bookchin's social ecology in moving towards a more radically democratic and postcapitalist world.[41] Some authors suggest as well that COVID-19 can be viewed as a 'dress rehearsal' for changes needed to successfully combat climate catastrophe.[42]

The rapid and powerful emergence of a movement challenging longstanding institutionalized racism in the US is also mobilising many toward radical and visionary social and political change.[43] In Seattle, Washington, USA, protestors have taken over a section of the Capitol Hill area, declaring an "autonomous zone", holding direct-democratic public assemblies, and providing mutual aid to each other to support the movement.[44] The question now, as with so many movement gains, is how to maintain and radicalise this autonomous zone.[45] Some commentators are even seeing the possibility of moving what is known as the 'Floyd Rebellion' in the US toward revolutionary goals and strategies, along the lines of a confederal municipalism.[46]

It is not impossible to imagine groups and movements such as social justice activists, Agro-ecologists, (social-justice informed) permaculturalists, and food justice and other social justice activists coming together to realise important dimensions of a reconstructive vision, along with healthy food and

soil regeneration, nurturing the 'seedlings' of libertarian municipalism in the process. I have argued in this study that a transformation of social ecology theory and practise is vital and important for optimising the conditions that would nurture this process among diverse communities. Such a transformation of core concepts, in a direction inspired by the work of Malabou, would ventilate any closure that would impede or obscure what Jane Anna Gordon identifies as the creative *creolizing* aspect of this community and movement-building process.

As people increasingly engage together post-pandemic in face-to-face democratic public arenas over substantive issues of a general interest, an interest defined by local effects of increasing climate disruption that affect everyone in a given place, it is not impossible to foresee a diminution in the polarisation exacerbated by Russian bots and the echo chamber of the blogosphere. Perhaps a renewed form of public ethics and sense of ethical social and political agency will emerge as well, energised by collaborative struggles against police violence. Perhaps we will see an increase in the capacity to move away from an atomised, helpless and dystopian social existence, towards a sense that maybe we can after all, recover a liveable future, in a material, biological and grounded sense.

General Conclusion: Social Ecology in the Current Moment

From the middle of the preceding century until his death in the early years of the current century, Murray Bookchin sought to bring ecology into revolutionary thought. He saw the 'grow or die' imperative of capitalism as fundamentally incompatible with the resources of a finite earth, and with the well-being of human and non-human communities. This 'ecological imperative' of limiting or overcoming capitalism conceived as an economic system was accompanied in his thought by the urgency of a long-enduring ethical imperative of opposing capitalism as a social system constructed on

and sustained by exploitation and expropriation, growing polarities of extreme wealth and poverty, racism and colonialism, and patriarchy.

These imperatives have catalysed radical anti-capitalist and anti-authoritarian movements over the past several decades, even as the political imaginary within mainstream political discourse remains severely constricted to a spectrum shifted significantly to the right. Among the sources that crystallized anti-capitalist and anti-authoritarian visions and movements going back to the 1970s in the US and certain left circles in Europe has been Bookchin's social ecology. In succeeding decades Bookchin and his writings became relatively obscure, but have reemerged as some of his core ideas have recently become integral to the program of the Rojava movement in parts of Turkey and Syria.

Currently, renewed interest in social ecology is occurring in the context of the 'nature sceptical' perspectives of the social construction of nature. Social constructionist perspectives take their bearing generally from Marxian or other socialist traditions, or from post-structuralist insights into the 'situated' nature of knowledge, sharpened by the way in which naturalising assumptions can perpetuate systems of domination and oppression. Further, renewed interest in social ecology is occurring in the context of a so-called New Materialism, which calls for integrating some of the insights of post-structuralism with greater attention to a myriad of material dimensions. This thesis is concerned with pointing the way to a social ecology more adequate in its philosophical formulations and in its activist focus within the demands of the current historical moment.

What I have done most uniquely towards this goal is to bring together Bookchin's thought with that of Catherine Malabou. Malabou's work offers theoretical resources to a social ecology reading of nature through her plastic reading of the Hegelian dialectic. Her work on Kant and epigenesis offers resources for a thinking of nature and freedom that is broadly compatible with social ecology. Malabou's study of neuroscience and its political implications presents a theoretical sophistication

concerning issues of the relation between a scientific and philosophical understanding of matter that goes beyond the 'game of anti-reductionism'. Together with the recent scientific new paradigm research cited in chapter 4 of this thesis, Malabou's arguments can be interpreted to support social ecology's call for an ecological ethics that would inform a non-hierarchical radical democratic politics. Though Bookchin's 'directionality thesis' cannot be supported in the sense that he proposes, that 'nature itself writes natural philosophy and ethics', Malabou's work shows that this assessment need not lead to ethical relativism that would fail to challenge the ongoing devastation of human and natural communities. Rather than a genetic and authoritative code self-evidently written, a metaphor drawn from Malabou's *Before Tomorrow* is more apt to describe the relation between nature and ethics, that of an interpretation of a written score of music, an ethical interpretation informed both by reflection on nature and by lived experience. Malabou's metaphor is more compatible with an epigenetic rather than a genetic understanding of natural evolution. Even recent scientific evidence alone is not sufficient to establish a self-evident overarching tendency or directionality within natural evolution, beyond the complex interplay of specific contingent evolutionary factors. Demonstrating responsibility to both the ecological and ethical imperatives can be facilitated by a symbiotic relation to a deconstructive materialism that avoids the sclerosis of dogmatism and the illusion of total theoretical closure, remaining open to the capacity for a vital growth and transformation adequate to its aims.

Bookchin's social ecology calls for an *ecologised* dialectic, one compatible with increasing focus on the importance of epigenetics in evolution, as well as with Malabou's articulation of an epigenetic model of rationality in *Before Tomorrow.* Her reading of the Hegelian dialectic in *The Future of Hegel* offers theoretical resources for staging dialectics in a non-necessitarian and non-identitarian form. Malabou shows that Absolute Knowledge in Hegel's system is not the final end point of a "bad infinity", but rather is the stage at which the rigidity of determinate forms is recognised

and overcome, and the potential energy of previous actualisations are liberated—allowing for new thoughts and new constructions.

However, the development of an ecological ethics based on a dialectical naturalism that is able to inform a new politics of direct democracy in social ecology has significant lacunae that become visible in a consideration of the particularity of struggles against patriarchy, racism, and colonialism. Such an ethics can be formulated in general, more Kantian universal and categorical principles such as non-hierarchy, compensatory social relations that move beyond legalistic notions of justice, the irreducible minimum, and usufruct. Nevertheless, grounding and fully articulating a social ecology system of ecological ethics in a more dialectical and Hegelian approach, requires the consideration of perspectives generated by the lived experience of those engaging in such struggles. In this light, the need for close engagement with the particularities of struggles against racism and the criminal justice system in the US becomes increasingly obvious as new movements form around these long-standing travesties.

The reconstructive vision of social ecology is furthered by a utopian principle of social hope, one that emphasises the importance of shared narratives of freedom toward a political general interest. In this context, the objectivity of an ethics can be maximised by a diversity of perspectives, a diversity that underlies an agonistic conception of directly democratic structures. This diversity can be encouraged towards a multiple, dialogic capacity to open to the encounter and the emergent, beyond the preconceived program or dogmatic assertion. The result, I argue, is best thought of in terms developed by Jana Anna Gordon and Lewis R. Gordon, as a *creaolized* social ecology, one in which identities and practises are transformed in unpredictable ways in the context of struggles towards a radical democracy.

In summary, social ecology articulates a comprehensive and compelling reconstructive vision, one that affirms our capacity to learn from history and define a revolutionary project for our time. This revolutionary effort is guided by an ethics that attempts to provide a needed objective basis for an ethics sufficiently stable to guide a principled politics. However, objectivity itself is increased by a diversity of perspectives, especially from those who have experienced forms of oppression. A reflective dialectical 'spirit of critique' as illuminated by Andrew J. Douglas, attuned to the grounding of discourse and deconstruction theory in realist discourse and a new materialist orientation has the potential to bring Bookchin's insights and emancipatory ethical vision to an enhanced level of sophistication and contemporary relevance. A 'Pan-African social ecology' as put forward by Modibo Kadalie, has the potential to sharpen the critical focus of social ecology, and thereby to revitalise its activism to encompass more directly and effectively anti-racist and decolonising efforts, thus expanding its global impact. The need to overcome divisions between revolutionaries and more reform-minded activists in the currently emergent movements against police violence highlights the need for a confluence of social ecology and what Bookchin termed 'social anarchism' with the liberation struggles of communities of color, as argued at numerous points in this thesis. This need suggests the further importance of the classical model of 'minimal, middle, and long-term programs', rearticulated for our time. Revolutionaries seeking to animate a 'socio-erotic' politics of desire need to integrate efforts to meet the short-term needs of people, within a revolutionary project some have defined as 'reform that doesn't stop'.

However, even if the social ecology vision is already sufficiently formed conceptually and practically to offer the framework for a much needed viable alternative to capitalist social domination and biodevastation, it must also maintain a deconstructive openness, possessing a multiple vision beyond even dual power capable of being transformed by other perspectives, other traditions of thought,

in order to expand both the depth and the breadth of this shared vision. Ethically this is so for its own sake (a principle endorsed by both Kant and Hegel), and for the sake of effectively building the majoritarian movements for social change needed to accomplish this vision. Murray Bookchin's social ecology, now extended by Abdullah Öcalan, Modibo Kadalie, and many others among the more radical and revolutionary activists in the movements emerging from the police killing of George Floyd, argues eloquently that a non-hierarchical organisation of society and a politics of direct democracy is not only the age-old form taken by people in reaction to systems of domination and oppression and the emergence of capitalism and the state. This non-hierarchical organisation toward a revitalisation of radical democracy, I argue, is also the only politics able to deal adequately with both accelerating ecological and the ethical imperatives of overcoming racism, colonialism, and all forms of domination and oppression.[47] Rather than some far-out fringe sectarian radicalism, this is truly the politics of how we in the broadest possible sense—including many non-human species—may recover a future.

Notes to Chapter 8

1. For Rojava support, especially in light of the ongoing Turkish invasion, see www.rojavasupportnetwork.org. Debbie Bookchin, Murray's daughter, has recently been touring the US giving talks on Rojava and the connection between Öcalan and Bookchin.

2. Murray Bookchin. 'What is Communalism?', accessed 10 May, 2019, www.democracynature.org/3/bookchin_communalism.htm.

3. Ibid.

4. See the three volume work by Ernst Bloch, trans. Neville Plaice, Stephen Plaice, and Paul Knight, *The Principle of Hope.* Written 1938-47, published 1995 as paperback (Cambridge, MA: MIT Press).

5. See Frances Bartkowski, *Feminist Utopias* (Lincoln, Nebraska: University of Nebraska Press, 1989).

6. 'What is Communalism?'

7. Ibid.

8. Ibid.

9. This decolonising activism built on earlier anticolonial or postcolonial writing. Anticolonial writing and discourse is, of course, a subject of immense scholarship and critical-analytic study and debate, including the work of such influential theoreticians as Frantz Fanon, Edward Said, Gayatri Chakravorty Spivak, Homi K. Bhabha, R. Siva Kurkuma, Dipesh Chakrabarty, Derek Gregory, and Amar Acheralou. Postcolonial studies have grown to encompass diverse subject areas such as politics, economics, culture, feminism, theology, and subjective experience. In *Post-Colonial Drama: Theory, Practice, and Politics* (New York: Routledge, 1996), Helen Gilbert and Joanne Tompkins engage *post-colonialism* as not merely a chronological structure of post-independence, but as a contestation of colonial discourses, power structures, and social hierarchies. It is this intersection and encounter not merely of discourse and power but also of material struggles of emerging social movements and non-hierarchical knowledge from below that most interests me in this study.

10. The Jamaican-Jewish writer, activist, and scholar Lewis R. Gordon told the story at a conference of being invited to give a talk during another conference organised by a young institute in South Africa out to make a name for itself. He was told apologetically when he arrived that the conference would have to be cancelled because there were insufficient attendees. He asked, 'Can I have a few days?' He went into the townships and returned with about 300 people, some with broken teeth, but all wanting to talk about the fundamental questions of life. 'We should not marketise thought, but rather, thought must critique the market', Gordon commented at another point. Lewis R. Gordon, remarks at 'Anomalies, Aberrations, and Open Futures: Practicing

Intellectual Resistance', conference held in Maribor, Slovenia, 1-2 July, 2017, also attended by this author.

11. Murray Bookchin, from transcribed notes of lecture on the theory of social ecology given at the Institute for Social Ecology, Plainfield, VT, July 1988.

12. Personal conversation with Murray Bookchin at the Institute for Social Ecology, July, 1988.

13. Brian Tokar, 'On Bookchin's Social Ecology and its Contributions To Social Movements', *Capitalism, Nature, Socialism* (March 2008).

14. The Clamshell Alliance, which continues anti-nuclear work to this day, was founded in 1976 to organise direct action against the construction of the Seabrook, New Hampshire nuclear reactors. See www.clamshellalliance.net.

15. These comments are based on my perspective and my experience with local chapters of the US Greens in Long Beach and Los Angeles, CA from 1989 -1995.

16. See Ynestra King and Gwyn Kirk, *What is Ecofeminism?* (Yellow Springs, OH: Ecofeminist Resources, Antioch College, 1999).

17. See Chaia Heller, *The Ecology of Everyday Life* (previously cited), and *Food, Farms, and Solidarity: French Farmers Challenge Industrial Agriculture and Genetically Modified Crops* (Durham, NC: Duke University Press, 2013).

18. Staudenmaier is Associate Professor of History at Marquette University in Milwaukee, WI.

19. See Eric Toensmeier, *The Carbon Farming Solution: A Global Toolkit of Perennial Crops and Regenerative Agriculture Practices for Climate Change Mitigation, and Food Security* (White River Junction, VT: Chelsea Green Publishing, 2016).

20. See Cindy Milstein, *Anarchism and its Aspirations* (Oakland, CA: AK Press, 2010; Cindy Milstein and Eric Ruin *Paths Toward Utopia: Graphic Explorations of Everyday Anarchism* (Oakland, CA: PM Press, 2012); and Cindy Milstein, ed., *Rebellious Mourning: The Collective Work of Grief* (Oakland, CA: AK Press, 2017).

21. In addition to publishing Andy Price's *Recovering Bookchin* (cited numerous times in this study), New Compass Press published Brian Tokar, *Toward Climate Justice: Perspectives on the Climate Crisis and Social Change* (Porrsgrunn, Norway: New Compass Press, 2014). New Compass recently published Adam Krause, *The Revolution Will be Hilarious & Other Essays* (Porrsgrunn, Norway: New Compass Press, 2018).

22. See Brian Tokar and Tamra Gilbertson, *Climate Justice and Community Renewal* (New York: Routledge, 2019).

23. Alexander Kolokotronis. 'Is America ready for a municipalist movement?' ROAR, 27 November, 2016.

24. Ibid.

25. Ibid.

26. Eleanor Finley, 'The New Municipalist Movements;. ROAR, 4August, 2017.

27. Ibid.

28. *What Should We Do with Our Brain?* 71.

29. Modibo Kadalie, ed. Andrew Zonneveld, *Pan-African Social Ecology: Speeches, Conversations, & Essays* (Atlanta, GA: On Our Own Authority Publishing, 2019).

30. Ibid., 116. We would hope to see in the future perhaps also a Pan-Asian Social Ecology, a Pan Latin-American Social Ecology, and more work on social ecology and Indigenous thought.

31. Especially 'Every Cook Can Govern', from C. L. R. James *Correspondence* 2, No. 12, (June 1956), transcribed by David Harvie, (2003), accessed 10 December, 2020, www.marxists.org.

32. *Pan-African Social Ecology,* 127. In his four-volume study completed near the end of his life entitled *The Third Revolution,* Bookchin identified an initial revolt that moves in increasingly radical directions, which is retrospectively identified as the first revolution. In time, however, conflicts among revolutionaries are resolved by a military regime, which is supplanted in turn by a restoration of the old regime. This restoration however is not wholly successful, because the social gains of the revolution cannot be removed, and become institutionalised in a kind of historical advance. This is the 'two stages' theory of revolution subscribed to by Marx and later, by the Chicago School of urban sociology. But Bookchin added a third stage, highlighting the insurgent revolutionaries who sought to reclaim and expand highly democratic institutions that had been established during earlier phases of the revolutionary cycle, and whose power had been usurped by the parties and factions that professed to speak in their name. Exemplified by the French *sans-culottes* and the Russian workers and sailors who wanted to reinvigorate the 'soviets' or grassroots councils, these insurgent revolutionaries articulated a popular desire for a radical democracy. However, Bookchin deliberately excluded revolutionary movements in Africa or Latin America in favour of the 'classical' revolutions in America, France, and Russia. Kabile significantly expands our historical vision of both contemporary and past revolutionary movements by discussing such movements as the movement of indigenous residents—especially women—of Cherán in the Mexican state of Michoacán for direct democracy and to preserve their collectively owned lands from illegal logging. See *Pan-African Social Ecology,* 128-129.

33. Grace Gershuny, *Organic Revolutionary: A Memoir of the Movement for Real Food, Planetary Healing, and Human Liberation,* 2nd ed. (Saint Johnsbury, VT: Joes Brook Press, 2017).

34. Walter Jehne. 'Regenerate Earth', 1-2, accessed 12 May, 2019, www.globalcoolingearth.org/wp-content/uploads/2017/09/Regenerate-Earth-Paper-Walter-Jehne.pdf.

35. *Organic Revolutionary,* 203.

36. See Sarah Carr, ed., 'How Can We Restore Marine Ecosystems? Perspectives and tips from global experts', 15 October 2018, accessed 14 March, 2020, www.meam.openchannels.org.

37. *Organic Revolutionary*, 203.

38. Walter Benjamin, quoted in Ernst Junger, ed., *Theories du fascisme allemande,* (LIGNESO 013 0057), pdg.

39. See Pakalolo, 'Our Obliteration of the Natural World's Habitats Creates Ideal Conditions for Pathogens to Emerge', 20 March, 2020, accessed 24, 2020, www.dailykos.com; and Catrin Einhorn, 'Animal Viruses are Jumping to Humans. Forest Loss Makes it Easier', 9 April, 2020, accessed 12 April, 2020 www.nytimes.com.

40. Max Haiven, 'No Return to Normal: for a Post-Pandemic Liberation', 23 March, 2020, accessed 9 April, 2020, www.roarmag.org,

41. See William E. Rees, 'The Earth is Telling Us We Must Rethink Our Growth Society', 6 April, 2020, accessed 10 April, 2020, www.thetyee.ca. Ree's metaphor of the 'earth' as a single totality with agency is, of course, problematic, from a social ecology point of view.

42. See Sally Uren, 'COVID-19: A Dress Rehearsal for the Climate Emergency?', 12 March, 2020, accessed 3 May, 2020, www.forumforthefuture.org.

43. For an exploration of the growing radical and eminently municipalist demand in the US for abolition of police departments in favour of the 'community safety' approach, see Hawzhin Azeez, 'How to Abolish the Police: Lessons from Rojava', 1 June, 2020, accessed 4 June, 2020, www.hawzhinpress.org; and Jake Johnson, 'Efforts at Incremental Reform Have Failed: Minneapolis City Council Members Declare Intent to Disband Police Department', 7 June, 2020, accessed 7 June 2020, www.commondreams.org.

44. See 'Protesters Establish Autonomous Zone Around Seattle PD Building as Police Retreat', 9 June, 2020, accessed 9 June, 2020, www.democracynow.org.

45. The organisers of the Autonomous Zone in Seattle's Capitol Hill area (known as 'Free Capitol Hill', the 'People's Republic of Capitol Hill', 'CHAZ', and 'Capitol Hill Occupied Protest' (CHOP), would do well to expand their vision to a municipalist one, in order to avoid destruction or cooptation, the two typical fates of autonomous zones, at least those in urban settings. See Charles Mudede, 'The Future of Capitol Hill's New Autonomous Zone is Predictable', 10 June, 2020, accessed 10 June, 2020, www.thestranger.com.

46. Perhaps most notable among these is Kali Akuno, a co-founder of Cooperation Jackson and a longtime organiser with the Malcolm X Grassroots movement. See Kali Akuno, 'From Rebellion to Revolution', *Viewpoint Magazine*, 11 June, 2020, www.viewpointmag.com. The revolutionary eco-socialist vision of Akuno envisions a coming together of 'critical left demands emerging from anarchist, communist, revolutionary nationalist, and socialist analytical and organizing traditions, such as police and prison abolition, economic democracy, and decolonization'. However, this vision is not yet become [counter-] hegemonic, even at the CHAZ in Seattle: as of mid-June 2020 there are conflicts between those who call for a revolutionary anti-capitalist movement led by activists shaped by black liberation and native sovereignty struggles, and activists more focused on more moderate 'achievable' goals, afraid the movement for criminal justice reform is being 'hijacked' by (white) anarchists.

47. For an eloquent and powerful statement of the current moment in the US, a statement very much in line with the arguments of this thesis, see Cornel West (interviewed by Chauncey DeVega), 'Cornel West on this moment of "escalating consciousness" and the need for radical democracy', 26, June, 2020, www.alternet.org.

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